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EXPERIMENTAL WAKE SURVEY BEHIND VIKING '75 ENTRY VEHICLE AT ANGLES OF ATTACK OF 0°, 5°, AND 10°, MACH NUMBERS FROM 0.20 TO 1.20, AND LONGITUDINAL STATIONS FROM 1.50 TO 11.00 BODY DIAMETERS

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16. Abstract

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The wake properties were essentially symmetrical about the X-axis at $\alpha = 0^{\circ}$ and the profiles were shifted away from the X-axis at angles of attack. An unexpected reduction in wake property ratios occurred as the Mach number increased from 0.60 to 1.00; these ratios then increased as the Mach number increased to 1.20. The reduction was present for all the longitudinal stations of the tests and decreased with increased longitudinal distance.

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SUMMARY

An investigation was conducted to obtain flow properties in the wake of a preliminary configuration of the Viking '75 Entry Vehicle at Mach numbers from 0.20 to 1.20 and at angles of attack of 0°, 5°, and 10°. The wake flow properties were calculated from total and static pressures measured with a pressure rake at longitudinal stations varying from 1.50 to 11.00 body diameters.

With the Viking Entry Vehicle at $\alpha = 0^{\circ}$, the wake properties were essentially symmetrical about the longitudinal axis and the largest differences in the profiles occurred at the smallest longitudinal distances. An unexpected reduction in center-line dynamic-pressure ratio occurred as the Mach number was increased from 0.60 to 1.00; this ratio then increased for a Mach number of 1.20. This dynamic-pressure reduction was largest at the smallest longitudinal distance but was still present at the greatest longitudinal distance.

The primary effect of angle of attack of the Viking Entry Vehicle on the wake properties was to shift the profiles away from the $\alpha = 0^{\circ}$ center-line values.

INTRODUCTION

Knowledge of the flow structure of the wake generated by blunt bodies has been of interest because of the influence on the drag and stability characteristics of decelerator systems operating in these flow fields. These flow structures are difficult to predict and the effects on drag and stability characteristics of bodies immersed in the wake are not well understood. Currently, a program is underway to "soft land" an unmanned vehicle on the planet Mars and this program will utilize a parachute deployed into the wake generated by a blunt body. This program has been designated as Viking '75, and the spacecraft will arrive at Mars in mid 1976.

Recently, work has been completed to measure the flow properties behind blunt bodies; some of these results are presented in references 1 to 6. Other investigations of importance to the study of the wake generated by the blunt bodies are presented in references 7 to 21. Because of the requirement that the decelerator system would be deployed at supersonic speeds, many wake investigations were centered in that speed region. (See refs. 1 to 6.) Since the decelerator system must operate at lower flight speeds, it is desirable to acquire test results at subsonic speeds. Accordingly, an investigation has been conducted to obtain flow properties in the wake of a preliminary configuration of the Viking '75 Entry Vehicle at Mach numbers from 0.20 to 1.20 and angles of attack of 0°, 5°, and 10°. The wake properties were calculated from total and static pressures measured with a pressure rake at longitudinal stations varying from 1.50 to 11.00 body diameters. Free-stream Reynolds number varied from 3.97×10^6 per meter (1.21×10^6 per foot) at $M_\infty = 0.20$ to 13.84×10^6 per meter (4.22×10^6 per foot) at $M_\infty = 1.20$.

Previous tests have been made with four different configurations, two 120° included-angle cones, a 140° included-angle cone, and the Viking '75 Entry Vehicle at Mach numbers from 1.60 to 3.95 and are presented in references 3 to 6. The data contained in this paper and the data presented in references 3 to 6 are intended to make available without analysis the wake data in the form of curves and tables to interested persons.

SYMBOLS

Measurements and calculations were made in the U.S. Customary Units. They are presented herein in the International System of Units (SI) with equivalent values given parenthetically in U.S. Customary Units.

D	cone base diameter, 12.192 cm (4.80 in.)
M_l	local Mach number
M_∞	free-stream Mach number
p_l	local static pressure, N/m^2 (lb/ft^2)
p_∞	free-stream static pressure, N/m^2 (lb/ft^2)
$p_{t,\infty}$	free-stream total pressure, N/m^2 (lb/ft^2)

q_l	local dynamic pressure, N/m^2 (lb/ft^2)
q_∞	free-stream dynamic pressure, N/m^2 (lb/ft^2)
V_l	local velocity, m/sec (ft/sec)
V_∞	free-stream velocity, m/sec (ft/sec)
X,Y,Z	coordinate axes
x	longitudinal distance downstream from maximum diameter of model, cm (in.)
y	lateral distance from model-rake plane, cm (in.)
z	vertical distance measured in model-rake plane at zero angle of attack of model, cm (in.)
α	angle of attack of model center line, deg

APPARATUS AND MODEL

Wind Tunnel

The investigation was conducted in the Langley 8-foot transonic pressure tunnel. This facility is a single-return, rectangular, slotted-throat tunnel having controls that allow for the independent variation of Mach number, density, temperature, and humidity. The stagnation temperature and dewpoint were maintained at values sufficient to avoid significant condensation effects. Additional information on the Langley 8-foot transonic pressure tunnel may be found in reference 22.

Model and Instrumentation

A sketch of the model used in the test program is shown in figure 1. The preliminary version of the Viking '75 Entry Vehicle was constructed of polished aluminum and had a base diameter of 12.192 cm (4.80 in.). The basic component of the model was a 140° cone which had a spherical nose radius of 0.25 body diameter and a small shoulder radius at the point of maximum diameter; the shoulder radius was an exact scale of the Viking Entry Vehicle. The afterbody was composed of frustums of two cones. The present configuration of the Viking '75 Entry Vehicle has slight differences in the nose radius and afterbody section from the model used in this test.

The model was supported in the test section by a sting protruding through the rake and mounted in the tunnel support system. (See fig. 2.) The model angle of attack, illustrated in figure 3, was obtained by including a short adapter between the model and sting.

The pressure rake, illustrated in figure 4, was used to perform the rake survey behind the Viking '75 Entry Vehicle. The rake was 29.21 cm (11.50 in.) high and was composed of 42 total-pressure tubes 0.64 cm (0.25 in.) apart and 22 static-pressure tubes 1.27 cm (0.50 in.) apart. The rake was designed so that the sting mounting the Viking '75 Entry Vehicle could be moved in and out to obtain a variation in x/D distances. The rake was connected to a sting which, in turn, was attached to a standard sting-support system.

The pressures were recorded by using two 48-channel pressure-sampling gages. The gage used to record total pressure had a range of 68 947 N/m^2 (1440 lb/ft^2) absolute and was referenced to free-stream static pressure. The gage used to record the static pressure had a maximum range of 34 474 N/m^2 (720 lb/ft^2) absolute and was also referenced to free-stream static pressure.

TESTS AND ACCURACY

The tests were performed at Mach numbers of 0.20, 0.40, 0.60, 0.80, 1.00, and 1.20. The Reynolds number varied from 3.97×10^6 per meter (1.21×10^6 per foot) at $M_\infty = 0.20$ to 13.84×10^6 per meter (4.22×10^6 per foot) at $M_\infty = 1.20$. The nominal test conditions for each Mach number were as follows:

M_∞	p_∞		q_∞		$p_{t,\infty}$	
	N/m^2	lb/ft^2	N/m^2	lb/ft^2	N/m^2	lb/ft^2
0.20	98 729	2062	2 763	57.7	101 505	2120
.40	90 828	1897	10 151	212	101 505	2120
.60	79 385	1658	20 062	419	101 505	2120
.80	66 505	1389	29 829	623	101 505	2120
1.00	53 434	1116	37 538	784	101 505	2120
1.20	41 991	877	42 182	881	101 505	2120

The nominal test conditions tabulated apply to all runs except runs at $M_\infty = 1.00$, $\alpha = 0^\circ$, x/D = 5.00, and x/D = 8.39 and $M_\infty = 1.20$, $\alpha = 10^\circ$, x/D = 5.00, and x/D = 8.39. These excepted runs were conducted when the tunnel was in operation at 1/2 atmosphere $\left(p_\infty = 26\ 812.8\ N/m^2\ (560\ lb/ft^2)\right)$.

The pressures in the wake of the Viking '75 Entry Vehicle were measured by means of electrically actuated pressure scanning valves that record essentially instantaneous values. The rake was mounted vertically in the tunnel and was positioned in a longitudinal direction at stations measured from the maximum diameter of the body.

Accuracy of the pressure-scanning valves is within 1 percent of full scale of the gage; this accuracy includes all errors of linearity, hysteresis, and repeatability. The free-stream stagnation pressure was measured with a precision mercury manometer, the accuracy of which is ± 23.94 N/m^2 (± 0.50 lb/ft^2).

The accuracy of the individual quantities is estimated to be within the following limits:

$p_{t,\infty}$, N/m^2 (lb/ft^2)	689.5 (14.4)
p_l, N/m^2 (lb/ft^2)	344.7 (7.2)
x, cm (in.)	0.0254 (0.01)
y, cm (in.)	0.0254 (0.01)
$M_\infty = 0.40$	± 0.003
$M_\infty = 1.20$	± 0.01

A quick reference of the angle of attack and longitudinal distances where wake properties were measured are represented by an X in the following schedule:

M_∞	α, deg	x/D distances								
		1.50	2.50	5.00	6.00	7.00	8.39	9.00	10.00	11.00
0.20	0				X			X	X	X
	5				X	X	X	X	X	X
	10				X	X	X	X	X	X
0.40	0	X	X	X	X	X	X	X	X	X
	5				X	X	X	X	X	X
	10			X	X	X	X	X	X	X
0.60	0	X	X	X	X	X	X	X	X	X
	5				X	X	X	X	X	X
	10			X	X	X	X	X	X	X
0.80	0	X	X	X	X	X	X	X	X	X
	5				X	X	X	X	X	X
	10			X	X	X	X	X	X	X
1.00	0	X		X	X	X	X	X	X	X
	5				X	X	X	X	X	X
	10			X	X	X	X	X	X	X
1.20	0	X		X	X		X	X	X	X
	5				X	X	X	X	X	X
	10			X	X	X	X	X	X	X

TABULATION OF EXPERIMENTAL DATA

Flow properties calculated from measured total and static pressure in the wake of the Viking '75 Entry Vehicle configuration are presented in tables 1 to 18. The tabulations consist of the local flow properties for Mach number, velocity, static pressure, and dynamic pressure. Each property has been nondimensionalized by its respective free-stream value. The data are identified by the necessary geometric information to determine the longitudinal position in the flow field aft of the body. The appropriate normal-shock expressions and isentropic flow relations were used in conjunction with the measured total and static pressures to obtain the desired flow properties.

The design of the pressure rake is such that there is a displacement of 1.52 cm (0.60 in.) between the total- and static-pressure tubes. The total-pressure tubes were alined with the center line of the body at all times. Because of the tunnel restrictions, no attempt was made to measure static pressures at the same lateral station that was used to measure the total pressures.

PRESENTATION OF DATA

The flow properties calculated from the measured total and static pressures in the wake of the Viking '75 Entry Vehicle configuration are presented in figures 5 to 22 and tables 1 to 18 for Mach numbers of 0.20, 0.40, 0.60, 0.80, 1.00, and 1.20 and for body angles of attack of 0°, 5°, and 10°. These data consist of ratios of local to free-stream conditions of Mach number, velocity, static pressure, and dynamic pressure presented as a function of vertical distance z/D measured from the model-rake center line in the model-rake plane. The model was mounted in the tunnel by use of a sting support. Although a wall support strut is a more desirable mounting arrangement, it was not possible to use in these tests because of the large span requirement and the vibrations generated during the test. Both the wall support and sting support will introduce some interference effect; a wall strut, however, has the advantage of permitting pressure data to be measured along the wake center line. The use of the sting-supported model and rake did not allow pressures to be measured at the wake center line; however, based on the studies presented in references 1 to 6, the authors have faired the data through this region. Fairing with the Viking Entry Vehicle at $\alpha = 0^{\circ}$ is extremely reliable since the flow behind the Viking Entry Vehicle would be symmetrical about the wake center line. Fairing with the Viking Entry Vehicle at 5° and 10° presents a little greater problem because of the boundary-layer buildup on the model sting; however, values shown for $\alpha = 5^{\circ}$ and 10° are believed to be reliable.

Zero Angle of Attack

Presented in figures 5 to 10 and tables 1 to 6 are plotted and tabulated flow properties for Mach numbers of 0.20, 0.40, 0.60, 0.80, 1.00, and 1.20, x/D distances (longitudinal) varying from 1.50 to 11.00 body diameters, y/D distances (lateral) of zero, and Viking Entry Vehicle angle of attack of 0°. Examination of these data shows that the various ratios are essentially symmetrical about the X-axis (z/D = 0). Further examination of the dynamic-pressure ratios (an important parameter in determining parachute efficiency) shows that at a specific Mach number, the differences between the dynamic pressure in the wake and in the free stream are greatest in the wake center at x/D = 1.50 and generally decrease as x/D or z/D increases. At x/D distances of about 9.00 and greater, only small changes are noted in the dynamic-pressure profiles. At a Mach number of 1.20, the dynamic-pressure profiles are similar to those published in references 4 and 6 for a Mach number of 1.60. At the largest z/D distance (z/D = ±1.198), the dynamic-pressure profiles were approaching free-stream values. One important trend was noted at the wake center line, an unexpected reduction in center-line q_l/q_∞ ratio occurred in the $M_\infty = 0.60$ to $M_\infty = 1.00$ speed range. At a constant x/D distance of 5.00, the center-line value of q_l/q_∞ decreased from about 0.53 at $M_\infty = 0.40$ to about 0.17 at $M_\infty = 1.00$, and then increased to approximately 0.3 at $M_\infty = 1.20$. This trend was found to be consistent with the data obtained during a drag investigation of a disk-gap-band parachute behind the Viking Entry Vehicle. (See ref. 23.) This decrease near $M_\infty = 1.00$ was not as severe at an x/D of 11.00 as at smaller x/D values but the reduction at $M_\infty = 1.00$ was present throughout the x/D range of the investigation.

Other Angles of Attack

Vehicle angle of attack other than 0° will occur for the type of entry considered for the Viking mission. Changes in angle of attack from $\alpha = 0^\circ$ will result in changes in the wake structure, which, in turn, will influence the behavior of a decelerator (for example, parachute) system operating downstream of the vehicle. The resulting changes in the wake structure could result in the parachute not being alined with the forebody at deployment; thereby asymmetrical loading in the riser and bridle lines would result.

Figures 11 to 16 and tables 7 to 12 present the plotted and tabulated flow properties for Mach numbers of 0.20, 0.40, 0.60, 0.80, 1.00, and 1.20, x/D distances (longitudinal) varying from 6.00 to 11.00 body diameters, y/D distances (lateral) of zero, and the Viking Entry Vehicle angle of attack of 5°. Figures 17 to 22 and tables 13 to 18 present the plotted and tabulated flow properties for Mach numbers of 0.20, 0.40, 0.60, 0.80, 1.00, and 1.20, x/D distances varying from 5.00 to 11.00 body diameters, y/D distances of zero, and the Viking Entry Vehicle angle of attack of 10°.

The primary angle-of-attack effect is to shift the profiles away from the $\alpha = 0^\circ$ center-line values, and the wake properties $\left(q_l/q_\infty,\ M_l/M_\infty,\ V_l/V_\infty, \text{ and } p_l/p_\infty\right)$ at the measuring limits ($z/D = \pm 1.198$) do not appear to be affected by the change in angle of attack. This shift from minimum values of the wake properties to positive values of z occurs because the orientation of the vehicle's lift vector in the negative z-direction results in a corresponding upwash in the wake. The shift in profiles is greater at $\alpha = 10^\circ$ than at $\alpha = 5^\circ$ especially at x/D distances near 5.00. At large x/D distances ($x/D = 11.00$), the shift from the $\alpha = 0^\circ$ center-line values is still larger for $\alpha = 10^\circ$; however, the difference is much less. At the largest x/D distance, the wake properties have smooth variation over the measuring distance of the rake ($\pm z/D = 1.198$).

CONCLUDING REMARKS

An investigation was conducted to obtain flow properties in the wake of a preliminary configuration of the Viking '75 Entry Vehicle at Mach numbers from 0.20 to 1.20 and at angles of attack of 0°, 5°, and 10°. The wake flow properties were calculated from total and static pressures measured with a pressure rake at longitudinal stations varying from 1.50 to 11.00 body diameters. With the Viking Entry Vehicle at an angle of attack of 0°, the various wake properties were essentially symmetrical about the longitudinal axis and the largest differences in the wake profile occurred at the smallest longitudinal distances. An unexpected reduction of center-line dynamic-pressure ratio occurred as the Mach number was increased from 0.60 to 1.00, and then increased for a Mach number of 1.20. This dynamic-pressure reduction was largest at the smallest longitudinal distance but was still present at the greatest longitudinal distance of the tests.

The primary effect of angle of attack of the Viking Entry Vehicle on the wake properties was to shift the profiles away from the center-line values at an angle of attack of 0°.

Langley Research Center,
National Aeronautics and Space Administration,
Hampton, Va., July 13, 1973.

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TABLE 1.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT)

(a) x/D = 6.00; y/D = 0.0; $\alpha = 0^{\circ}$;

p_∞ = 98 800.91 N/m^2 (2063.50 lb/ft^2);
q_∞ = 2634.85 N/m^2 (55.03 lb/ft^2);
$p_{t,\infty}$ = 101 463.05 N/m^2 (2119.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0010	.9073	.9521	.9524
1.146	1.0012	.8945	.9452	.9456
1.094	1.0014	.8675	.9308	.9312
1.042	1.0014	.8597	.9266	.9271
.989	1.0014	.8576	.9254	.9259
.937	1.0012	.8541	.9236	.9241
.885	1.0011	.8278	.9094	.9100
.833	1.0011	.7965	.8920	.8927
.781	1.0011	.8023	.8952	.8959
.729	1.0011	.7738	.8792	.8800
.677	1.0011	.7454	.8629	.8637
.625	1.0009	.7355	.8572	.8581
.573	1.0007	.7028	.8380	.8390
.521	1.0009	.7227	.8497	.8506
.469	1.0012	.7027	.8378	.8387
.417	1.0013	.7141	.8445	.8454
.365	1.0013	.6913	.8309	.8319
.313	1.0015	.6692	.8174	.8184
.260	1.0019	.6527	.8072	.8083
.208	1.0021	.6355	.7964	.7975
.156	1.0025	.5613	.7482	.7495
-.156	1.0023	.5827	.7625	.7637
-.208	1.0018	.6071	.7784	.7796
-.260	1.0013	.6343	.7959	.7970
-.313	1.0013	.6771	.8223	.8233
-.365	1.0012	.6742	.8206	.8216
-.417	1.0012	.6664	.8159	.8169
-.469	1.0011	.6785	.8232	.8242
-.521	1.0009	.6885	.8294	.8304
-.573	1.0007	.7497	.8656	.8664
-.625	1.0009	.7220	.8493	.8502
-.677	1.0010	.7227	.8497	.8506
-.729	1.0010	.7412	.8605	.8613
-.781	1.0009	.7824	.8841	.8849
-.833	1.0011	.8094	.8991	.8996
-.885	1.0013	.7937	.8903	.8910
-.937	1.0013	.8235	.9069	.9075
-.989	1.0013	.8477	.9201	.9207
-1.042	1.0013	.8633	.9285	.9290
-1.094	1.0013	.8448	.9185	.9191
-1.146	1.0014	.8846	.9399	.9403
-1.198	1.0015	.8902	.9428	.9432

(b) x/D = 9.00; y/D = 0.0; $\alpha = 0^{\circ}$;

p_∞ = 98 767.40 N/m^2 (2062.80 lb/ft^2);
q_∞ = 2751.20 N/m^2 (57.46 lb/ft^2);
$p_{t,\infty}$ = 101 544.45 N/m^2 (2120.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.8834	1.0011	.9394	.9396
1.146	.8616	1.0013	.9276	.9282
1.094	.8127	1.0015	.9008	.9015
1.042	.8263	1.0013	.9084	.9091
.989	.8508	1.0011	.9219	.9225
.937	.8454	1.0010	.9190	.9196
.885	.8291	1.0009	.9101	.9108
.833	.8331	1.0012	.9122	.9126
.781	.8208	1.0014	.9053	.9060
.729	.8032	1.0014	.8956	.8965
.677	.7692	1.0014	.8764	.8772
.625	.7712	1.0015	.8775	.8783
.573	.7623	1.0015	.8724	.8733
.521	.7548	1.0016	.8681	.8689
.469	.7637	1.0017	.8731	.8740
.417	.7670	1.0017	.8751	.8759
.365	.7650	1.0018	.8739	.8747
.313	.7404	1.0020	.8596	.8605
.260	.7186	1.0023	.8468	.8477
.208	.6831	1.0027	.8254	.8264
.156	.6366	1.0032	.7966	.7978
-.156	.6422	1.0026	.8003	.8014
-.208	.6818	1.0022	.8248	.8259
-.260	.6996	1.0018	.8357	.8367
-.313	.7378	1.0017	.8582	.8591
-.365	.7460	1.0016	.8630	.8639
-.417	.7453	1.0015	.8627	.8635
-.469	.7501	1.0014	.8655	.8664
-.521	.7583	1.0014	.8702	.8710
-.573	.7528	1.0014	.8671	.8679
-.625	.7706	1.0012	.8773	.8781
-.677	.7665	1.0010	.8751	.8759
-.729	.8039	1.0011	.8961	.8968
-.781	.7950	1.0013	.8910	.8916
-.833	.7843	1.0012	.8854	.8861
-.885	.8182	1.0011	.9040	.9047
-.937	.8249	1.0012	.9077	.9083
-.989	.8344	1.0014	.9129	.9135
-1.042	.8195	1.0013	.9047	.9053
-1.094	.8508	1.0013	.9218	.9225
-1.146	.8807	1.0011	.9379	.9384
-1.198	.8943	1.0010	.9452	.9456

TABLE 1.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT) - Concluded

(c) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 0^o$;
$p_\infty = 98\ 686.00\ N/m^2\ (2061.10\ lb/ft^2)$;
$q_\infty = 2747.37\ N/m^2\ (57.38\ lb/ft^2)$;
$p_{t,\infty} = 101\ 458.27\ N/m^2\ (2119.00\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0016	.8844	.9397	.9401
1.146	1.0016	.8980	.9469	.9475
1.094	1.0016	.8654	.9295	.9300
1.042	1.0015	.8620	.9277	.9282
.989	1.0015	.8858	.9405	.9409
.937	1.0015	.8430	.9174	.9180
.885	1.0016	.8572	.9251	.9257
.833	1.0016	.8239	.9070	.9076
.781	1.0016	.8395	.9155	.9161
.729	1.0017	.8477	.9199	.9205
.677	1.0018	.8232	.9065	.9071
.625	1.0019	.7796	.8821	.8829
.573	1.0019	.7986	.8928	.8935
.521	1.0019	.7911	.8886	.8895
.469	1.0019	.7782	.8813	.8821
.417	1.0021	.7291	.8530	.8539
.365	1.0024	.7454	.8623	.8632
.313	1.0026	.7024	.8370	.8380
.260	1.0028	.7194	.8470	.8479
.208	1.0033	.6729	.8190	.8200
.156	1.0037	.6318	.7934	.7946
-.156	1.0028	.6361	.7964	.7976
-.208	1.0025	.6853	.8268	.8276
-.260	1.0022	.7263	.8513	.8522
-.313	1.0020	.7659	.8743	.8751
-.365	1.0018	.7619	.8721	.8729
-.417	1.0017	.7489	.8647	.8655
-.469	1.0016	.7905	.8884	.8891
-.521	1.0016	.7905	.8884	.8892
-.573	1.0015	.8205	.9052	.9056
-.625	1.0015	.7939	.8904	.8911
-.677	1.0016	.8137	.9013	.9020
-.729	1.0015	.8123	.9006	.9013
-.781	1.0014	.8110	.8999	.9006
-.833	1.0015	.8117	.9002	.9009
-.885	1.0016	.8259	.9081	.9087
-.937	1.0015	.8212	.9055	.9061
-.989	1.0014	.8300	.9104	.9110
-1.042	1.0014	.8137	.9014	.9021
-1.094	1.0014	.8518	.9223	.9226
-1.146	1.0013	.8634	.9286	.9291
-1.198	1.0012	.8668	.9305	.9309

(d) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 0^o$;
$p_\infty = 98\ 824.85\ N/m^2\ (2064.00\ lb/ft^2)$;
$q_\infty = 2630.54\ N/m^2\ (54.94\ lb/ft^2)$;
$p_{t,\infty} = 101\ 482.21\ N/m^2\ (2119.50\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0011	.8940	.9450	.9454
1.146	1.0011	.8769	.9355	.9364
1.094	1.0011	.8911	.9435	.9439
1.042	1.0013	.8712	.9328	.9333
.989	1.0014	.8455	.9189	.9195
.937	1.0013	.8676	.9308	.9315
.885	1.0013	.8470	.9197	.9203
.833	1.0014	.8285	.9096	.9102
.781	1.0015	.8043	.8961	.8968
.729	1.0015	.7922	.8894	.8901
.677	1.0014	.7915	.8890	.8898
.625	1.0015	.8157	.9025	.9031
.573	1.0016	.8057	.8969	.8975
.521	1.0017	.7822	.8837	.8844
.469	1.0017	.7815	.8833	.8840
.417	1.0018	.7729	.8734	.8792
.366	1.0018	.7758	.8800	.8807
.313	1.0021	.7515	.8660	.8668
.260	1.0024	.7215	.8484	.8495
.208	1.0028	.6786	.8347	.8356
.156	1.0031	.6729	.8190	.8200
-.156	1.0030	.6258	.7899	.7910
-.208	1.0025	.6973	.8340	.8349
-.260	1.0019	.7458	.8628	.8636
-.313	1.0018	.7658	.8743	.8751
-.366	1.0016	.7601	.8711	.8719
-.417	1.0016	.7815	.8833	.8841
-.469	1.0015	.7858	.8858	.8865
-.521	1.0015	.7830	.8842	.8849
-.573	1.0014	.7972	.8922	.8929
-.625	1.0013	.7930	.8899	.8906
-.677	1.0012	.8229	.9066	.9072
-.729	1.0012	.8030	.8956	.8962
-.781	1.0012	.8115	.9003	.9009
-.833	1.0012	.8186	.9042	.9048
-.885	1.0013	.8257	.9081	.9087
-.937	1.0012	.8236	.9070	.9076
-.989	1.0012	.8300	.9105	.9111
-1.042	1.0013	.8243	.9073	.9079
-1.094	1.0014	.8442	.9182	.9187
-1.146	1.0012	.8705	.9325	.9329
-1.198	1.0011	.8940	.9450	.9454

TABLE 2.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT)

(a) $x/D = 1.50$; $y/D = 0.0$; $\alpha = 0^\circ$;

$p_\infty = 90\ 886.31\ \text{N/m}^2$ (1898.20 lb/ft^2);
$q_\infty = 10\ 187.96\ \text{N/m}^2$ (212.78 lb/ft^2);
$p_{t,\infty} = 101\ 486.99\ \text{N/m}^2$ (2119.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.9715	1.2347	1.1274	1.1227
1.146	.9683	1.2584	1.1400	1.1347
1.094	.9651	1.2801	1.1517	1.1459
1.042	.9602	1.2868	1.1576	1.1516
.989	.9553	1.2045	1.1229	1.1184
.937	.9485	1.0338	1.0440	1.0426
.885	.9417	.7826	.9116	.9140
.833	.9395	.4651	.7036	.7091
.781	.9373	.2668	.5336	.5396
.729	.9373	.1483	.3978	.4031
.677	.9373	.0811	.2942	.2984
.625	.9366	.0592	.2513	.2551
.573	.9360	.0343	.1914	.1943
.521	.9371	.0068	.0850	.0863
.469	.9382	0.0000	0.0000	0.0000
.417	.9383	0.0000	0.0000	0.0000
.366	.9383	0.0000	0.0000	0.0000
.313	.9396	0.0000	0.0000	0.0000
.260	.9410	0.0000	0.0000	0.0000
.208	.9420	0.0000	0.0000	0.0000
.156	.9431	0.0000	0.0000	0.0000
-.156	.9438	0.0000	0.0000	0.0000
-.208	.9427	0.0000	0.0000	0.0000
-.260	.9416	0.0000	0.0000	0.0000
-.313	.9404	0.0000	0.0000	0.0000
-.366	.9391	0.0000	0.0000	0.0000
-.417	.9382	0.0000	0.0000	0.0000
-.469	.9373	0.0000	0.0000	0.0000
-.521	.9370	0.0000	0.0000	0.0000
-.573	.9367	0.0000	0.0000	0.0000
-.625	.9365	.0257	.1656	.1682
-.677	.9363	.0590	.2510	.2547
-.729	.9365	.1232	.3627	.3677
-.781	.9367	.2596	.5264	.5324
-.833	.9390	.3933	.6471	.6531
-.885	.9413	.6705	.8439	.8477
-.937	.9472	.9940	1.0244	1.0236
-.989	.9531	1.2353	1.1384	1.1332
-1.042	.9589	1.2831	1.1567	1.1507
-1.094	.9648	1.2749	1.1496	1.1439
-1.146	.9672	1.2728	1.1472	1.1416
-1.198	.9695	1.2549	1.1376	1.1325

(b) $x/D = 2.50$; $y/D = 0.0$; $\alpha = 0^\circ$;

$p_\infty = 90\ 871.94\ \text{N/m}^2$ (1897.90 lb/ft^2);
$q_\infty = 10\ 194.19\ \text{N/m}^2$ (212.91 lb/ft^2);
$p_{t,\infty} = 101\ 482.21\ \text{N/m}^2$ (2119.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.9948	1.0389	1.0219	1.0212
1.146	.9945	1.0384	1.0218	1.0211
1.094	.9941	1.0372	1.0214	1.0207
1.042	.9934	1.0147	1.0107	1.0103
.989	.9927	.9801	.9936	.9938
.937	.9902	.9373	.9729	.9737
.885	.9877	.8827	.9454	.9470
.833	.9858	.7593	.8776	.8808
.781	.9840	.6416	.8075	.8119
.729	.9835	.4979	.7115	.7170
.677	.9830	.3695	.6131	.6191
.625	.9818	.2852	.5389	.5450
.573	.9806	.1923	.4429	.4485
.521	.9812	.1683	.4142	.4196
.469	.9818	.0943	.3099	.3144
.417	.9596	.1571	.4025	.4078
.366	.9573	.2754	.5363	.5424
.313	.9709	.1386	.3778	.3830
.260	.9845	.0127	.1134	.1152
.208	.9852	.0052	.0728	.0740
.156	.9860	.0139	.1186	.1205
-.156	.9856	.0147	.1223	.1242
-.208	.9849	.0088	.0947	.0962
-.260	.9842	.0029	.0545	.0554
-.313	.9832	.0172	.1323	.1344
-.366	.9823	.0446	.2131	.2163
-.417	.9812	.0778	.2816	.2858
-.469	.9800	.1008	.3207	.3253
-.521	.9802	.1598	.4037	.4091
-.573	.9803	.2140	.4672	.4730
-.625	.9817	.2763	.5305	.5365
-.677	.9830	.3674	.6113	.6174
-.729	.9842	.4934	.7080	.7136
-.781	.9854	.6036	.7826	.7874
-.833	.9867	.7687	.8827	.8857
-.885	.9880	.8673	.9370	.9387
-.937	.9898	.9474	.9783	.9790
-.989	.9917	.9987	1.0035	1.0034
-1.042	.9930	1.0093	1.0082	1.0079
-1.094	.9942	1.0314	1.0185	1.0179
-1.146	.9954	1.0365	1.0204	1.0198
-1.198	.9966	1.0268	1.0150	1.0146

TABLE 2.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Continued

(c) $x/D = 5.00$; $y/D = 0.0$; $\alpha = 0^o$;

$p_\infty = 90\ 819.27\ N/m^2$ (1896.80 lb/ft^2);
$q_\infty = 10\ 242.54\ N/m^2$ (213.92 lb/ft^2);
$p_{t,\infty} = 101\ 482.21\ N/m^2$ (2119.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0065	.9219	.9571	.9583
1.146	1.0062	.9063	.9491	.9505
1.094	1.0060	.8980	.9448	.9464
1.042	1.0058	.8770	.9338	.9356
.989	1.0055	.8680	.9291	.9311
.937	1.0055	.8355	.9115	.9140
.885	1.0055	.8239	.9052	.9078
.833	1.0058	.7927	.8878	.8908
.781	1.0060	.7485	.8626	.8660
.729	1.0051	.7177	.8450	.8488
.677	1.0042	.7171	.8451	.8489
.625	1.0043	.6723	.8182	.8224
.573	1.0044	.6590	.8100	.8144
.521	1.0048	.6399	.7981	.8026
.469	1.0051	.6057	.7762	.7811
.417	1.0051	.6022	.7741	.7790
.366	1.0050	.6043	.7755	.7803
.313	1.0053	.5819	.7608	.7659
.260	1.0057	.5601	.7463	.7515
.208	1.0074	.5418	.7333	.7387
.156	1.0092	.5004	.7041	.7097
-.156	1.0086	.5079	.7096	.7152
-.208	1.0070	.5518	.7402	.7455
-.260	1.0054	.5706	.7533	.7585
-.313	1.0044	.5747	.7564	.7615
-.366	1.0033	.5961	.7708	.7757
-.417	1.0035	.6258	.7897	.7944
-.469	1.0037	.6347	.7952	.7998
-.521	1.0037	.6456	.8020	.8065
-.573	1.0037	.6736	.8192	.8235
-.625	1.0037	.6702	.8171	.8214
-.677	1.0037	.6997	.8350	.8389
-.729	1.0043	.7417	.8594	.8629
-.781	1.0050	.7597	.8694	.8728
-.833	1.0049	.7747	.8780	.8812
-.885	1.0048	.8183	.9025	.9051
-.937	1.0057	.8269	.9068	.9093
-.989	1.0067	.8437	.9155	.9178
-1.042	1.0049	.8799	.9357	.9375
-1.094	1.0031	.8950	.9446	.9462
-1.146	1.0031	.9227	.9591	.9603
-1.198	1.0031	.9402	.9681	.9691

(d) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 0^o$;

$p_\infty = 90\ 915.03\ N/m^2$ (1898.80 lb/ft^2);
$q_\infty = 10\ 119.01\ N/m^2$ (211.34 lb/ft^2);
$p_{t,\infty} = 101\ 443.90\ N/m^2$ (2118.70 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0047	.8983	.9456	.9471
1.146	1.0050	.8840	.9378	.9396
1.094	1.0053	.8703	.9304	.9324
1.042	1.0057	.8736	.9320	.9339
.989	1.0060	.8291	.9078	.9103
.937	1.0055	.8318	.9095	.9119
.885	1.0051	.8133	.8996	.9022
.833	1.0049	.7921	.8879	.8908
.781	1.0047	.7808	.8816	.8846
.729	1.0043	.7688	.8749	.8781
.677	1.0039	.7348	.8556	.8591
.625	1.0038	.7235	.8490	.8526
.573	1.0037	.7064	.8389	.8428
.521	1.0038	.6785	.8221	.8263
.469	1.0039	.6876	.8276	.8316
.417	1.0045	.6639	.8130	.8173
.366	1.0050	.6687	.8157	.8199
.313	1.0057	.6328	.7932	.7978
.260	1.0064	.6333	.7933	.7978
.208	1.0082	.6037	.7738	.7787
.156	1.0099	.5525	.7396	.7448
-.156	1.0091	.5590	.7443	.7494
-.208	1.0070	.6000	.7719	.7767
-.260	1.0049	.6551	.8074	.8118
-.313	1.0043	.6676	.8153	.8196
-.366	1.0036	.6737	.8193	.8235
-.417	1.0038	.6655	.8143	.8185
-.469	1.0039	.6630	.8127	.8170
-.521	1.0033	.6782	.8219	.8261
-.573	1.0037	.7011	.8358	.8397
-.625	1.0042	.6954	.8322	.8361
-.677	1.0047	.7352	.8554	.8590
-.729	1.0042	.7520	.8654	.8687
-.781	1.0037	.7717	.8768	.8800
-.833	1.0044	.7907	.8873	.8902
-.885	1.0051	.7830	.8826	.8856
-.937	1.0059	.8083	.8964	.8992
-.989	1.0067	.8260	.9058	.9083
-1.042	1.0058	.8606	.9250	.9271
-1.094	1.0049	.8650	.9278	.9296
-1.146	1.0050	.8968	.9446	.9462
-1.198	1.0051	.8941	.9432	.9448

TABLE 2.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Continued

(e) x/D = 7.00; y/D = 0.0; $\alpha = 0^\circ$;

p_∞ = 90 915.03 N/m^2 (1898.80 lb/ft^2);
q_∞ = 10 193.23 N/m^2 (212.89 lb/ft^2);
$p_{t,\infty}$ = 101 520.51 N/m^2 (2120.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0207	.3546	.5894	.5955
1.146	1.0166	.7967	.8853	.8883
1.094	1.0125	.8166	.8981	.9008
1.042	1.0084	.8412	.9134	.9157
.989	1.0043	.8453	.9175	.9197
.937	1.0046	.8316	.9098	.9123
.885	1.0049	.8103	.8980	.9007
.833	1.0050	.8122	.8989	.9016
.781	1.0051	.7894	.8862	.8892
.729	1.0049	.7691	.8748	.8780
.677	1.0046	.7611	.8704	.8737
.625	1.0046	.7652	.8727	.8760
.573	1.0046	.7294	.8521	.8558
.521	1.0054	.7268	.8502	.8539
.469	1.0062	.7228	.8476	.8513
.417	1.0064	.6969	.8321	.8361
.366	1.0066	.6806	.8223	.8264
.313	1.0074	.6756	.8189	.8231
.260	1.0081	.6712	.8160	.8202
.208	1.0104	.6181	.7821	.7869
.156	1.0127	.5870	.7614	.7664
-.156	1.0111	.5941	.7665	.7715
-.208	1.0092	.6463	.8003	.8048
-.260	1.0073	.6597	.8093	.8136
-.313	1.0063	.6933	.8301	.8341
-.366	1.0052	.7048	.8373	.8413
-.417	1.0049	.7004	.8348	.8388
-.469	1.0046	.7167	.8446	.8484
-.521	1.0044	.7169	.8448	.8486
-.573	1.0043	.7309	.8531	.8567
-.625	1.0044	.7415	.8592	.8628
-.677	1.0045	.7638	.8720	.8753
-.729	1.0045	.7762	.8790	.8822
-.781	1.0045	.7686	.8748	.8780
-.833	1.0043	.8009	.8930	.8958
-.885	1.0042	.8276	.9078	.9103
-.937	1.0045	.8319	.9100	.9125
-.989	1.0049	.8383	.9134	.9157
-1.042	1.0031	.8574	.9245	.9266
-1.094	1.0013	.8880	.9417	.9433
-1.146	1.0013	.9138	.9553	.9566
-1.198	1.0013	.9104	.9535	.9548

(f) x/D = 8.39; y/D = 0.0; $\alpha = 0^\circ$;

p_∞ = 90 622.96 N/m^2 (1892.70 lb/ft^2);
q_∞ = 10 468.54 N/m^2 (218.64 lb/ft^2);
$p_{t,\infty}$ = 101 530.09 N/m^2 (2120.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0138	.8118	.8948	.8977
1.146	1.0098	.8312	.9072	.9098
1.094	1.0059	.8426	.9153	.9176
1.042	1.0055	.8412	.9146	.9170
.989	1.0052	.8345	.9111	.9136
.937	1.0051	.8153	.9006	.9034
.885	1.0049	.8120	.8989	.9017
.833	1.0054	.7821	.8820	.8851
.781	1.0059	.7861	.8840	.8871
.729	1.0057	.7737	.8771	.8804
.677	1.0055	.7766	.8788	.8820
.625	1.0056	.7522	.8649	.8684
.573	1.0057	.7545	.8661	.8696
.521	1.0059	.7477	.8622	.8657
.469	1.0061	.7464	.8613	.8649
.417	1.0067	.7208	.8461	.8500
.366	1.0074	.7018	.8347	.8387
.313	1.0083	.6964	.8310	.8352
.260	1.0093	.6815	.8218	.8261
.208	1.0115	.6604	.8080	.8126
.156	1.0138	.6035	.7716	.7766
-.156	1.0129	.5950	.7664	.7715
-.208	1.0109	.6509	.8024	.8070
-.260	1.0088	.6635	.8110	.8155
-.313	1.0077	.7083	.8384	.8424
-.366	1.0066	.7087	.8391	.8431
-.417	1.0063	.7187	.8451	.8490
-.469	1.0059	.7320	.8530	.8568
-.521	1.0055	.7440	.8602	.8638
-.573	1.0051	.7433	.8599	.8635
-.625	1.0050	.7458	.8615	.8650
-.677	1.0048	.7570	.8680	.8714
-.729	1.0052	.7666	.8733	.8766
-.781	1.0056	.7628	.8710	.8744
-.833	1.0055	.7635	.8714	.8748
-.885	1.0054	.8095	.8973	.9001
-.937	1.0060	.7982	.8908	.8937
-.989	1.0066	.8116	.8979	.9007
-1.042	1.0054	.8406	.9144	.9168
-1.094	1.0042	.8430	.9163	.9186
-1.146	1.0042	.8664	.9288	.9309
-1.198	1.0043	.8725	.9321	.9340

TABLE 2.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Continued

(g) x/D = 9.00; y/D = 0.0; $\alpha = 0^\circ$;
p_∞ = 90 929.40 N/m^2 (1899.10 lb/ft^2);
q_∞ = 10 165.94 N/m^2 (212.32 lb/ft^2);
$p_{t,\infty}$ = 101 510.94 N/m^2 (2120.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0052	.8791	.9352	.9370
1.146	1.0053	.8731	.9319	.9338
1.094	1.0055	.8524	.9207	.9229
1.042	1.0056	.8582	.9238	.9259
.989	1.0057	.8326	.9099	.9123
.937	1.0061	.8173	.9013	.9039
.885	1.0065	.8182	.9016	.9042
.833	1.0065	.8194	.9023	.9049
.781	1.0064	.8017	.8925	.8954
.729	1.0064	.8000	.8916	.8944
.677	1.0063	.7905	.8863	.8892
.625	1.0065	.7845	.8828	.8859
.573	1.0067	.7806	.8806	.8836
.521	1.0070	.7669	.8727	.8759
.469	1.0072	.7496	.8627	.8662
.417	1.0076	.7360	.8547	.8583
.366	1.0080	.7330	.8527	.8564
.313	1.0091	.7254	.8478	.8516
.260	1.0102	.6859	.8240	.8281
.208	1.0125	.6674	.8119	.8162
.156	1.0149	.6154	.7787	.7835
-.156	1.0121	.6322	.7904	.7950
-.208	1.0104	.6664	.8121	.8164
-.260	1.0087	.7097	.8388	.8426
-.313	1.0081	.7277	.8496	.8533
-.366	1.0075	.7330	.8530	.8566
-.417	1.0071	.7327	.8530	.8566
-.469	1.0067	.7599	.8688	.8721
-.521	1.0060	.7604	.8694	.8727
-.573	1.0052	.7694	.8749	.8781
-.625	1.0056	.7863	.8842	.8872
-.677	1.0061	.7842	.8828	.8859
-.729	1.0059	.7884	.8853	.8883
-.781	1.0057	.7940	.8885	.8914
-.833	1.0058	.7907	.8866	.8896
-.885	1.0059	.8105	.8977	.9004
-.937	1.0062	.8196	.9025	.9051
-.989	1.0065	.8315	.9089	.9114
-1.042	1.0060	.8482	.9182	.9205
-1.094	1.0054	.8382	.9131	.9154
-1.146	1.0051	.8669	.9287	.9307
-1.198	1.0047	.8676	.9293	.9312

(h) x/D = 10.00; y/D = 0.0; $\alpha = 0^\circ$;
p_∞ = 90 943.76 N/m^2 (1899.40 lb/ft^2);
q_∞ = 10 148.22 N/m^2 (211.95 lb/ft^2);
$p_{t,\infty}$ = 101 506.15 N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0053	.8988	.9456	.9471
1.146	1.0053	.8680	.9292	.9312
1.094	1.0053	.8757	.9333	.9352
1.042	1.0055	.8691	.9297	.9316
.989	1.0057	.8498	.9192	.9214
.937	1.0058	.8479	.9181	.9204
.885	1.0060	.8396	.9136	.9159
.833	1.0050	.8245	.9053	.9078
.781	1.0061	.8164	.9008	.9035
.729	1.0064	.8024	.8929	.8957
.677	1.0067	.7911	.8865	.8894
.625	1.0067	.7962	.8893	.8922
.573	1.0067	.7781	.8791	.8822
.521	1.0070	.7694	.8741	.8773
.469	1.0072	.7840	.8823	.8853
.417	1.0075	.7611	.8692	.8725
.366	1.0077	.7551	.8657	.8690
.313	1.0088	.7367	.8545	.8581
.260	1.0100	.7204	.8445	.8483
.208	1.0121	.6840	.8221	.8262
.156	1.0141	.6411	.7951	.7996
-.156	1.0117	.6500	.8016	.8060
-.208	1.0096	.6951	.8297	.8338
-.260	1.0075	.7293	.8508	.8545
-.313	1.0071	.7537	.8651	.8685
-.366	1.0067	.7548	.8659	.8693
-.417	1.0065	.7679	.8734	.8767
-.469	1.0063	.7541	.8657	.8690
-.521	1.0059	.7673	.8734	.8766
-.573	1.0055	.7933	.8882	.8911
-.625	1.0054	.7950	.8893	.8921
-.677	1.0052	.7940	.8887	.8916
-.729	1.0050	.7941	.8889	.8918
-.781	1.0048	.8070	.8962	.8989
-.833	1.0051	.8073	.8962	.8990
-.885	1.0054	.7971	.8904	.8933
-.937	1.0060	.8210	.9034	.9060
-.989	1.0066	.8076	.8957	.8985
-1.042	1.0056	.8230	.9046	.9072
-1.094	1.0046	.8516	.9207	.9228
-1.146	1.0045	.8701	.9307	.9326
-1.198	1.0044	.8782	.9351	.9369

TABLE 2.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Concluded

(i) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 0^\circ$;

$p_\infty = 90\,938.97$ N/m^2 (1899.30 lb/ft^2);
$q_\infty = 10\,078.79$ N/m^2 (210.50 lb/ft^2);
$p_{t,\infty} = 101\,424.75$ N/m^2 (2118.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0062	.8902	.9406	.9423
1.146	1.0062	.8909	.9410	.9426
1.094	1.0062	.8797	.9350	.9368
1.042	1.0060	.8594	.9243	.9263
.989	1.0058	.8433	.9157	.9179
.937	1.0059	.8424	.9152	.9175
.885	1.0059	.8444	.9162	.9185
.833	1.0063	.8283	.9073	.9097
.781	1.0067	.8186	.9017	.9043
.729	1.0064	.8071	.8955	.8982
.677	1.0062	.8076	.8959	.8986
.625	1.0067	.7968	.8896	.8925
.573	1.0073	.7881	.8845	.8875
.521	1.0071	.7941	.8880	.8909
.469	1.0070	.7781	.8790	.8821
.417	1.0077	.7811	.8805	.8835
.366	1.0083	.7706	.8742	.8774
.313	1.0090	.7559	.8655	.8689
.260	1.0096	.7446	.8588	.8623
.208	1.0123	.7025	.8330	.8370
.156	1.0150	.6379	.7928	.7973
-.156	1.0131	.6208	.7828	.7875
-.208	1.0107	.7020	.8334	.8373
-.260	1.0083	.7393	.8563	.8598
-.313	1.0078	.7657	.8716	.8749
-.366	1.0073	.7614	.8694	.8727
-.417	1.0067	.7757	.8778	.8809
-.469	1.0061	.7870	.8844	.8874
-.521	1.0061	.7826	.8819	.8850
-.573	1.0062	.7831	.8822	.8852
-.625	1.0061	.7899	.8860	.8890
-.677	1.0061	.7980	.8906	.8935
-.729	1.0058	.7904	.8865	.8894
-.781	1.0055	.8119	.8985	.9012
-.833	1.0058	.8055	.8949	.8976
-.885	1.0060	.8118	.8983	.9010
-.937	1.0061	.8147	.8998	.9025
-.989	1.0062	.8295	.9080	.9104
-1.042	1.0055	.8423	.9153	.9176
-1.094	1.0047	.8430	.9160	.9183
-1.146	1.0045	.8621	.9264	.9284
-1.198	1.0044	.8578	.9242	.9263

TABLE 3.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT)

(a) $x/D = 1.50$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 79\ 605.72\ \mathrm{N/m^2}$ ($1662.60\ \mathrm{lb/ft^2}$);
$q_\infty = 20\ 034.54\ \mathrm{N/m^2}$ ($418.43\ \mathrm{lb/ft^2}$);
$p_{t,\infty} = 101\ 506.15\ \mathrm{N/m^2}$ ($2120.00\ \mathrm{lb/ft^2}$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.9299	1.2252	1.1478	1.1358
1.146	.9250	1.2431	1.1593	1.1461
1.094	.9201	1.2491	1.1652	1.1514
1.042	.9092	1.2366	1.1663	1.1524
.989	.8982	1.1130	1.1132	1.1043
.937	.8980	.8141	.9575	.9602
.885	.8777	.5091	.7616	.7726
.833	.8775	.2719	.5567	.5701
.781	.8772	.1634	.4315	.4438
.729	.8770	.0842	.3099	.3198
.677	.8768	.0534	.2469	.2551
.625	.8760	.0327	.1933	.1998
.573	.8753	.0127	.1203	.1245
.521	.8761	0.0000	0.0000	0.0000
.469	.8768	0.0000	0.0000	0.0000
.417	.8774	0.0000	0.0000	0.0000
.366	.8780	0.0000	0.0000	0.0000
.313	.8791	0.0000	0.0000	0.0000
.260	.8803	0.0000	0.0000	0.0000
.208	.8826	0.0000	0.0000	0.0000
.156	.8850	0.0000	0.0000	0.0000
-.156	.8851	0.0000	0.0000	0.0000
-.208	.8831	0.0000	0.0000	0.0000
-.260	.8810	0.0000	0.0000	0.0000
-.313	.8789	0.0000	0.0000	0.0000
-.366	.8768	0.0000	0.0000	0.0000
-.417	.8753	.0043	.0700	.0725
-.469	.8739	.0035	.0629	.0651
-.521	.8740	.0051	.0764	.0791
-.573	.8742	.0201	.1517	.1569
-.625	.8734	.0348	.1995	.2063
-.677	.8727	.0516	.2432	.2512
-.729	.8738	.0887	.3185	.3286
-.781	.8748	.1497	.4137	.4257
-.833	.8757	.2636	.5486	.5620
-.885	.8767	.5123	.7645	.7753
-.937	.8860	.8230	.9638	.9661
-.989	.8953	1.1205	1.1187	1.1094
-1.042	.9050	1.2377	1.1694	1.1553
-1.094	.9148	1.2583	1.1728	1.1583
-1.146	.9211	1.2520	1.1659	1.1521
-1.198	.9274	1.2341	1.1536	1.1410

(b) $x/D = 2.50$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 79\ 586.56\ \mathrm{N/m^2}$ ($1662.20\ \mathrm{lb/ft^2}$);
$q_\infty = 20\ 048.42\ \mathrm{N/m^2}$ ($418.72\ \mathrm{lb/ft^2}$);
$p_{t,\infty} = 101\ 501.36\ \mathrm{N/m^2}$ ($2119.90\ \mathrm{lb/ft^2}$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.9697	1.0947	1.0625	1.0579
1.146	.9661	1.0946	1.0644	1.0597
1.094	.9625	1.0966	1.0674	1.0625
1.042	.9599	1.0838	1.0626	1.0580
.989	.9572	.9913	1.0176	1.0164
.937	.9501	.8942	.9701	.9720
.885	.9430	.7812	.9102	.9154
.833	.9379	.6236	.8154	.8248
.781	.9327	.5042	.7352	.7469
.729	.9254	.3372	.6023	.6156
.677	.9262	.2673	.5372	.5505
.625	.9268	.1556	.4097	.4216
.573	.9273	.1005	.3292	.3395
.521	.9294	.0599	.2538	.2622
.469	.9316	.0315	.1840	.1903
.417	.8945	.1623	.4259	.4381
.366	.8573	.3030	.5945	.6078
.313	.8971	.1319	.3834	.3949
.260	.9368	0.0000	0.0000	0.0000
.208	.9405	0.0000	0.0000	0.0000
.156	.9441	0.0000	0.0000	0.0000
-.156	.9411	0.0000	0.0000	0.0000
-.208	.9399	0.0000	0.0000	0.0000
-.260	.9387	0.0000	0.0000	0.0000
-.313	.9355	0.0000	0.0000	0.0000
-.366	.9323	.0079	.0919	.0951
-.417	.9309	.0304	.1806	.1868
-.469	.9296	.0347	.1932	.1997
-.521	.9296	.0598	.2535	.2619
-.573	.9296	.0957	.3208	.3309
-.625	.9286	.1470	.3979	.4096
-.677	.9277	.2200	.4870	.4999
-.729	.9285	.3482	.6123	.6256
-.781	.9296	.4854	.7226	.7345
-.833	.9333	.6109	.8090	.8186
-.885	.9369	.7886	.9174	.9224
-.937	.9432	.8961	.9747	.9764
-.989	.9494	1.0271	1.0401	1.0373
-1.042	.9546	1.0605	1.0540	1.0501
-1.094	.9598	1.0873	1.0644	1.0597
-1.146	.9666	1.0914	1.0626	1.0580
-1.198	.9734	1.0803	1.0535	1.0496

TABLE 3.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Continued

(c) x/D = 5.00; y/D = 0.0; α = 0°;

p_∞ = 79 586.56 N/m² (1662.20 lb/ft²);
q_∞ = 20 038.37 N/m² (418.51 lb/ft²);
$p_{t,\infty}$ = 101 491.78 N/m² (2119.70 lb/ft²)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0187	.9170	.9488	.9520
1.146	1.0183	.9091	.9449	.9483
1.094	1.0178	.8936	.9370	.9409
1.042	1.0173	.8789	.9295	.9338
.989	1.0168	.8467	.9125	.9177
.937	1.0170	.8211	.8986	.9044
.885	1.0171	.7948	.8840	.8905
.833	1.0170	.7577	.8631	.8706
.781	1.0168	.7239	.8437	.8520
.729	1.0147	.6952	.8277	.8366
.677	1.0126	.6640	.8098	.8193
.625	1.0120	.6405	.7955	.8055
.573	1.0114	.5998	.7701	.7808
.521	1.0123	.5861	.7609	.7719
.469	1.0131	.5495	.7365	.7480
.417	1.0132	.5187	.7155	.7275
.366	1.0133	.5194	.7159	.7279
.313	1.0134	.4949	.6988	.7111
.260	1.0134	.5057	.7064	.7186
.208	1.0174	.4590	.6717	.6844
.156	1.0214	.4409	.6570	.6659
-.156	1.0212	.4146	.6372	.6503
-.208	1.0172	.4526	.6671	.6799
-.260	1.0132	.4750	.6847	.6973
-.313	1.0111	.5076	.7086	.7207
-.366	1.0089	.5265	.7224	.7342
-.417	1.0091	.5371	.7296	.7413
-.469	1.0092	.5605	.7452	.7566
-.521	1.0101	.5818	.7589	.7700
-.573	1.0110	.6077	.7753	.7859
-.625	1.0115	.6360	.7929	.8030
-.677	1.0120	.6618	.8087	.8182
-.729	1.0129	.6966	.8293	.8381
-.781	1.0138	.7246	.8454	.8536
-.833	1.0140	.7575	.8643	.8717
-.885	1.0142	.7785	.8761	.8830
-.937	1.0168	.8031	.8887	.8951
-.989	1.0195	.8184	.8960	.9020
-1.042	1.0137	.8677	.9252	.9297
-1.094	1.0080	.9111	.9507	.9538
-1.146	1.0080	.9310	.9611	.9635
-1.198	1.0080	.9401	.9658	.9680

(d) x/D = 6.00; y/D = 0.0; α = 0°;

p_∞ = 79 495.59 N/m² (1660.30 lb/ft²);
q_∞ = 20 115.45 N/m² (420.12 lb/ft²);
$p_{t,\infty}$ = 101 491.78 N/m² (2119.70 lb/ft²)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0132	.9029	.9440	.9475
1.146	1.0140	.8877	.9357	.9396
1.094	1.0148	.8790	.9307	.9349
1.042	1.0150	.8612	.9211	.9259
.989	1.0153	.8431	.9112	.9165
.937	1.0144	.8339	.9067	.9122
.885	1.0134	.8060	.8918	.8980
.833	1.0122	.7787	.8771	.8840
.781	1.0110	.7635	.8690	.8763
.729	1.0098	.7424	.8574	.8652
.677	1.0086	.7296	.8505	.8586
.625	1.0079	.7228	.8469	.8551
.573	1.0071	.6970	.8319	.8407
.521	1.0074	.6594	.8091	.8186
.469	1.0076	.6421	.7983	.8082
.417	1.0090	.6404	.7966	.8066
.366	1.0105	.6112	.7777	.7883
.313	1.0124	.5921	.7648	.7757
.260	1.0144	.5720	.7509	.7622
.208	1.0187	.5572	.7396	.7511
.156	1.0231	.5151	.7096	.7218
-.156	1.0199	.5307	.7213	.7333
-.208	1.0160	.5486	.7348	.7465
-.260	1.0121	.5966	.7677	.7786
-.313	1.0100	.6012	.7715	.7823
-.366	1.0080	.6269	.7886	.7989
-.417	1.0083	.6071	.7759	.7866
-.469	1.0086	.6228	.7858	.7962
-.521	1.0078	.6526	.8047	.8144
-.573	1.0069	.6731	.8176	.8269
-.625	1.0077	.6913	.8282	.8371
-.677	1.0086	.7181	.8438	.8521
-.729	1.0090	.7404	.8566	.8644
-.781	1.0093	.7603	.8679	.8752
-.833	1.0106	.7818	.8795	.8863
-.885	1.0119	.7995	.8889	.8952
-.937	1.0138	.8186	.8986	.9045
-.989	1.0157	.8364	.9074	.9129
-1.042	1.0155	.8545	.9173	.9222
-1.094	1.0153	.8833	.9327	.9368
-1.146	1.0143	.9051	.9446	.9481
-1.198	1.0132	.9181	.9519	.9549

TABLE 3.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Continued

(e) x/D = 7.00; y/D = 0.0; $\alpha = 0^\circ$;
p_∞ = 79 586.56 N/m^2 (1662.20 lb/ft^2);
q_∞ = 20 032.62 N/m^2 (418.39 lb/ft^2);
$p_{t,\infty}$ = 101 486.99 N/m^2 (2119.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0539	.3544	.5799	.5932
1.146	1.0429	.7796	.8646	.8720
1.094	1.0319	.7917	.8759	.8829
1.042	1.0209	.8373	.9057	.9112
.989	1.0099	.8668	.9265	.9309
.937	1.0109	.8210	.9012	.9069
.885	1.0119	.8104	.8949	.9009
.833	1.0127	.7795	.8773	.8842
.781	1.0135	.7719	.8727	.8798
.729	1.0122	.7666	.8702	.8774
.677	1.0110	.7462	.8592	.8668
.625	1.0111	.7339	.8520	.8599
.573	1.0113	.7176	.8424	.8507
.521	1.0124	.7123	.8388	.8473
.469	1.0134	.6826	.8207	.8299
.417	1.0139	.6666	.8108	.8203
.366	1.0143	.6502	.8006	.8104
.313	1.0165	.6457	.7970	.8069
.260	1.0187	.6275	.7848	.7951
.208	1.0229	.5988	.7651	.7760
.156	1.0271	.5442	.7279	.7397
-.156	1.0260	.5523	.7337	.7453
-.208	1.0213	.5902	.7602	.7712
-.260	1.0165	.6126	.7763	.7869
-.313	1.0144	.6433	.7963	.8063
-.366	1.0123	.6497	.8011	.8109
-.417	1.0115	.6722	.8152	.8246
-.469	1.0107	.6792	.8198	.8289
-.521	1.0106	.6805	.8206	.8297
-.573	1.0105	.6908	.8268	.8357
-.625	1.0101	.7216	.8452	.8534
-.677	1.0098	.7243	.8469	.8551
-.729	1.0104	.7385	.8549	.8627
-.781	1.0110	.7601	.8671	.8744
-.833	1.0105	.7759	.8763	.8832
-.885	1.0099	.7926	.8859	.8923
-.937	1.0116	.8017	.8902	.8965
-.989	1.0133	.8143	.8964	.9024
-1.042	1.0078	.8579	.9227	.9273
-1.094	1.0022	.8941	.9446	.9480
-1.146	1.0022	.9018	.9486	.9518
-1.198	1.0022	.9306	.9636	.9659

(f) x/D = 8.39; y/D = 0.0; $\alpha = 0^\circ$;
p_∞ = 79 586.56 N/m^2 (1662.20 lb/ft^2);
q_∞ = 20 053.69 N/m^2 (418.83 lb/ft^2);
$p_{t,\infty}$ = 101 506.15 N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0158	.8771	.9292	.9335
1.146	1.0158	.8810	.9312	.9354
1.094	1.0158	.8698	.9253	.9298
1.042	1.0148	.8484	.9143	.9194
.989	1.0138	.8355	.9078	.9132
.937	1.0133	.8202	.8997	.9055
.885	1.0128	.8058	.8920	.8982
.833	1.0139	.7902	.8828	.8895
.781	1.0151	.7750	.8738	.8808
.729	1.0142	.7706	.8717	.8788
.677	1.0133	.7691	.8712	.8783
.625	1.0133	.7484	.8594	.8670
.573	1.0132	.7361	.8523	.8603
.521	1.0144	.7356	.8515	.8596
.469	1.0156	.7195	.8417	.8501
.417	1.0166	.7002	.8299	.8387
.366	1.0176	.7091	.8347	.8434
.313	1.0198	.6828	.8182	.8275
.260	1.0220	.6702	.8098	.8193
.208	1.0271	.6273	.7815	.7919
.156	1.0322	.5680	.7418	.7532
-.156	1.0298	.5984	.7623	.7732
-.208	1.0251	.6519	.7974	.8074
-.260	1.0204	.6680	.8091	.8186
-.313	1.0180	.7047	.8320	.8407
-.366	1.0157	.7048	.8330	.8417
-.417	1.0147	.7203	.8425	.8508
-.469	1.0137	.7112	.8376	.8461
-.521	1.0138	.7271	.8469	.8550
-.573	1.0140	.7293	.8481	.8562
-.625	1.0136	.7396	.8542	.8621
-.677	1.0133	.7561	.8638	.8713
-.729	1.0140	.7596	.8655	.8729
-.781	1.0146	.7738	.8733	.8804
-.833	1.0140	.7843	.8795	.8862
-.885	1.0134	.7990	.8879	.8943
-.937	1.0160	.8096	.8926	.8988
-.989	1.0186	.8082	.8907	.8970
-1.042	1.0145	.8327	.9060	.9115
-1.094	1.0104	.8792	.9328	.9369
-1.146	1.0112	.8759	.9307	.9349
-1.198	1.0120	.8783	.9316	.9358

TABLE 3.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Continued

(g) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 79\ 600.93\ N/m^2$ ($1662.50\ lb/ft^2$);
$q_\infty = 20\ 006.77\ N/m^2$ ($417.85\ lb/ft^2$);
$p_{t,\infty} = 101\ 467.84\ N/m^2$ ($2119.20\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0145	.8811	.9319	.9360
1.146	1.0147	.8758	.9291	.9333
1.094	1.0149	.8709	.9264	.9308
1.042	1.0151	.8457	.9128	.9179
.989	1.0153	.8230	.9003	.9061
.937	1.0150	.8297	.9041	.9097
.885	1.0147	.8185	.8982	.9040
.833	1.0149	.8078	.8921	.8983
.781	1.0151	.7950	.8850	.8915
.729	1.0147	.7969	.8862	.8926
.677	1.0143	.7784	.8761	.8830
.625	1.0148	.7680	.8699	.8771
.573	1.0153	.7451	.8567	.8644
.521	1.0153	.7551	.8624	.8699
.469	1.0152	.7476	.8582	.8658
.417	1.0166	.7249	.8444	.8527
.366	1.0181	.7152	.8382	.8466
.313	1.0204	.6850	.8194	.8285
.260	1.0226	.6787	.8147	.8240
.208	1.0279	.6426	.7906	.8008
.156	1.0332	.6085	.7675	.7783
-.156	1.0281	.5920	.7589	.7699
-.208	1.0230	.6575	.8017	.8115
-.260	1.0179	.6977	.8279	.8368
-.313	1.0172	.7165	.8393	.8477
-.366	1.0165	.7182	.8405	.8489
-.417	1.0153	.7272	.8463	.8545
-.469	1.0140	.7463	.8579	.8656
-.521	1.0138	.7524	.8615	.8690
-.573	1.0136	.7538	.8624	.8699
-.625	1.0134	.7504	.8605	.8681
-.677	1.0132	.7694	.8714	.8785
-.729	1.0132	.7690	.8712	.8783
-.781	1.0133	.7722	.8730	.8800
-.833	1.0130	.7932	.8849	.8914
-.885	1.0127	.8047	.8914	.8976
-.937	1.0148	.8079	.8922	.8984
-.989	1.0169	.8040	.8892	.8955
-1.042	1.0146	.8339	.9066	.9121
-1.094	1.0123	.8600	.9217	.9264
-1.146	1.0104	.8730	.9296	.9338
-1.198	1.0085	.8935	.9413	.9449

(h) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 79\ 620.08\ N/m^2$ ($1662.90\ lb/ft^2$);
$q_\infty = 19\ 993.84\ N/m^2$ ($417.58\ lb/ft^2$);
$p_{t,\infty} = 101\ 472.63\ N/m^2$ ($2119.30\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0150	.8893	.9360	.9399
1.146	1.0150	.8835	.9329	.9370
1.094	1.0150	.8651	.9232	.9278
1.042	1.0150	.8586	.9197	.9245
.989	1.0150	.8458	.9128	.9180
.937	1.0148	.8328	.9059	.9114
.885	1.0145	.8179	.8979	.9038
.833	1.0149	.8240	.9010	.9068
.781	1.0154	.8007	.8880	.8944
.729	1.0151	.7869	.8804	.8871
.677	1.0149	.7876	.8809	.8876
.625	1.0151	.7832	.8784	.8852
.573	1.0154	.7635	.8671	.8744
.521	1.0157	.7644	.8675	.8748
.469	1.0160	.7483	.8582	.8659
.417	1.0173	.7362	.8507	.8587
.366	1.0185	.7338	.8488	.8569
.313	1.0208	.7210	.8404	.8488
.260	1.0230	.7079	.8318	.8405
.208	1.0279	.6747	.8102	.8197
.156	1.0327	.6228	.7766	.7871
-.156	1.0272	.6043	.7670	.7778
-.208	1.0227	.6747	.8123	.8217
-.260	1.0182	.7051	.8321	.8408
-.313	1.0175	.7173	.8397	.8481
-.366	1.0168	.7373	.8515	.8595
-.417	1.0155	.7465	.8574	.8651
-.469	1.0143	.7514	.8607	.8683
-.521	1.0139	.7636	.8678	.8751
-.573	1.0134	.7678	.8704	.8775
-.625	1.0136	.7797	.8771	.8839
-.677	1.0138	.7731	.8732	.8803
-.729	1.0134	.7824	.8786	.8854
-.781	1.0131	.7953	.8860	.8925
-.833	1.0132	.7958	.8862	.8926
-.885	1.0134	.7982	.8875	.8939
-.937	1.0146	.8105	.8938	.8999
-.989	1.0158	.8133	.8948	.9008
-1.042	1.0138	.8331	.9065	.9120
-1.094	1.0118	.8502	.9167	.9216
-1.146	1.0099	.8621	.9240	.9285
-1.198	1.0080	.8828	.9358	.9398

TABLE 3.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Concluded

(i) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 79\ 672.75\ N/m^2\ (1664.00\ lb/ft^2)$;
$q_\infty = 19\ 956.97\ N/m^2\ (416.81\ lb/ft^2)$;
$p_{t,\infty} = 101\ 477.42\ N/m^2\ (2119.40\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0146	.8797	.9312	.9353
1.146	1.0146	.8768	.9296	.9336
1.094	1.0146	.8810	.9319	.9360
1.042	1.0154	.8557	.9180	.9229
.989	1.0162	.8431	.9109	.9161
.937	1.0155	.8399	.9094	.9147
.885	1.0148	.8257	.9021	.9077
.833	1.0158	.8162	.8964	.9023
.781	1.0168	.8187	.8973	.9032
.729	1.0155	.8073	.8912	.8973
.677	1.0163	.8042	.8896	.8958
.625	1.0164	.7969	.8855	.8919
.573	1.0165	.7843	.8784	.8852
.521	1.0170	.7736	.8722	.8793
.469	1.0175	.7687	.8692	.8764
.417	1.0190	.7628	.8652	.8725
.366	1.0205	.7401	.8516	.8595
.313	1.0224	.7301	.8451	.8533
.260	1.0243	.7195	.8381	.8466
.208	1.0294	.6847	.8156	.8248
.156	1.0345	.6315	.7813	.7917
-.156	1.0311	.6183	.7744	.7849
-.208	1.0256	.6755	.8115	.8209
-.260	1.0202	.7155	.8375	.8460
-.313	1.0192	.7362	.8499	.8579
-.366	1.0182	.7444	.8551	.8628
-.417	1.0164	.7416	.8542	.8620
-.469	1.0146	.7626	.8669	.8742
-.521	1.0149	.7601	.8654	.8728
-.573	1.0152	.7577	.8639	.8713
-.625	1.0141	.7821	.8782	.8850
-.677	1.0130	.7872	.8815	.8881
-.729	1.0126	.8011	.8894	.8957
-.781	1.0121	.8036	.8911	.8972
-.833	1.0124	.8024	.8903	.8965
-.885	1.0127	.8071	.8928	.8989
-.937	1.0145	.8078	.8923	.8984
-.989	1.0164	.8124	.8940	.9001
-1.042	1.0150	.8141	.8956	.9016
-1.094	1.0136	.8298	.9048	.9104
-1.146	1.0125	.8459	.9140	.9191
-1.198	1.0115	.8706	.9277	.9321

TABLE 4.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT)

(a) $x/D = 1.50$; $y/D = 0.0$; $\alpha = 0^\circ$;

p_∞ = 66 620.59 N/m^2 (1391.40 lb/ft^2);
q_∞ = 29 803.55 N/m^2 (622.46 lb/ft^2);
$p_{t,\infty}$ = 101 496.57 N/m^2 (2119.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.8701	1.1841	1.1665	1.1434
1.146	.8639	1.1925	1.1748	1.1503
1.094	.8578	1.1972	1.1814	1.1557
1.042	.8445	1.1747	1.1794	1.1541
.989	.8313	1.0129	1.1038	1.0904
.937	.8206	.6612	.8976	.9076
.885	.8100	.4046	.7067	.7277
.833	.8124	.1951	.4900	.5126
.781	.8147	.0982	.3290	.3470
.729	.8158	.0453	.2357	.2495
.677	.8169	.0259	.1781	.1888
.625	.8158	.0182	.1492	.1582
.573	.8147	.0126	.1244	.1320
.521	.8149	.0035	.0660	.0700
.469	.8150	.0002	.0163	.0173
.417	.8158	0.0000	0.0000	0.0000
.366	.8166	0.0000	0.0000	0.0000
.313	.8184	0.0000	0.0000	0.0000
.260	.8202	0.0000	0.0000	0.0000
.208	.8205	0.0000	0.0000	0.0000
.156	.8208	0.0000	0.0000	0.0000
-.156	.8212	0.0000	0.0000	0.0000
-.208	.8205	0.0000	0.0000	0.0000
-.260	.8198	0.0000	0.0000	0.0000
-.313	.8182	0.0000	0.0000	0.0000
-.366	.8166	.0001	.0083	.0088
-.417	.8150	.0008	.0310	.0329
-.469	.8134	.0092	.1066	.1132
-.521	.8135	.0148	.1348	.1430
-.573	.8136	.0181	.1490	.1580
-.625	.8145	.0246	.1736	.1840
-.677	.8154	.0335	.2027	.2147
-.729	.8140	.0534	.2562	.2710
-.781	.8127	.0962	.3441	.3627
-.833	.8114	.1939	.4888	.5114
-.885	.8100	.4253	.7246	.7449
-.937	.8192	.7109	.9316	.9386
-.989	.8284	1.0299	1.1150	1.1000
-1.042	.8406	1.1702	1.1799	1.1545
-1.094	.8529	1.1977	1.1850	1.1588
-1.146	.8585	1.1955	1.1801	1.1547
-1.198	.8640	1.1906	1.1739	1.1495

(b) $x/D = 2.50$; $y/D = 0.0$; $\alpha = 0^\circ$;

p_∞ = 66 591.86 N/m^2 (1390.80 lb/ft^2);
q_∞ = 29 801.63 N/m^2 (622.42 lb/ft^2);
$p_{t,\infty}$ = 101 467.84 N/m^2 (2119.20 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.8893	1.1514	1.1379	1.1193
1.146	.8777	1.1519	1.1456	1.1258
1.094	.8662	1.1161	1.1352	1.1170
1.042	.8528	1.0095	1.0880	1.0768
.989	.8395	.8428	1.0020	1.0018
.937	.8286	.6863	.9101	.9191
.885	.8177	.4825	.7682	.7867
.833	.8143	.3210	.6278	.6506
.781	.8108	.2192	.5199	.5428
.729	.8106	.1306	.4014	.4220
.677	.8105	.0742	.3025	.3194
.625	.8107	.0446	.2346	.2483
.573	.8109	.0202	.1578	.1674
.521	.8136	.0027	.0572	.0607
.469	.8164	0.0000	0.0000	0.0000
.417	.8229	0.0000	0.0000	0.0000
.366	.8294	0.0000	0.0000	0.0000
.313	.8263	0.0000	0.0000	0.0000
.260	.8231	0.0000	0.0000	0.0000
.208	.8268	0.0000	0.0000	0.0000
.156	.8304	0.0000	0.0000	0.0000
-.156	.8308	0.0000	0.0000	0.0000
-.208	.8280	0.0000	0.0000	0.0000
-.260	.8251	0.0000	0.0000	0.0000
-.313	.8218	0.0000	0.0000	0.0000
-.366	.8185	0.0000	0.0000	0.0000
-.417	.8158	0.0000	0.0000	0.0000
-.469	.8132	0.0000	0.0000	0.0000
-.521	.8128	.0046	.0749	.0795
-.573	.8124	.0147	.1345	.1427
-.625	.8108	.0326	.2005	.2124
-.677	.8092	.0692	.2924	.3089
-.729	.8102	.1249	.3926	.4129
-.781	.8112	.2091	.5077	.5305
-.833	.8145	.2950	.6018	.6248
-.885	.8179	.4791	.7653	.7840
-.937	.8263	.6430	.8822	.8935
-.989	.8346	.8502	1.0093	1.0082
-1.042	.8471	1.0212	1.0980	1.0854
-1.094	.8596	1.1094	1.1361	1.1178
-1.146	.8725	1.1471	1.1466	1.1267
-1.198	.8854	1.1551	1.1422	1.1230

TABLE 4.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Continued

(c) $x/D = 5.00$; $y/D = 0.0$; $\alpha = 0^o$;
$p_\infty = 66\ 553.56$ N/m^2 (1390.00 lb/ft^2);
$q_\infty = 29\ 861.48$ N/m^2 (623.67 lb/ft^2);
$p_{t,\infty} = 101\ 510.94$ N/m^2 (2120.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0532	.8933	.9209	.9290
1.146	1.0505	.8700	.9100	.9191
1.094	1.0477	.8697	.9111	.9200
1.042	1.0474	.8358	.8933	.9037
.989	1.0472	.8177	.8836	.8949
.937	1.0451	.7754	.8613	.8743
.885	1.0431	.7336	.8386	.8532
.833	1.0422	.7039	.8218	.8374
.781	1.0413	.6441	.7864	.8041
.729	1.0366	.6004	.7610	.7799
.677	1.0320	.5673	.7414	.7612
.625	1.0296	.5198	.7105	.7314
.573	1.0273	.4930	.6927	.7141
.521	1.0310	.4433	.6557	.6780
.469	1.0346	.3862	.6109	.6339
.417	1.0335	.3726	.6004	.6235
.366	1.0324	.3758	.6034	.6264
.313	1.0345	.3141	.5510	.5742
.260	1.0366	.2856	.5249	.5479
.208	1.0394	.2606	.5007	.5235
.156	1.0422	.2607	.5002	.5229
-.156	1.0448	.2503	.4895	.5121
-.208	1.0381	.2806	.5199	.5429
-.260	1.0314	.2961	.5358	.5590
-.313	1.0277	.3380	.5735	.5967
-.366	1.0239	.3581	.5914	.6145
-.417	1.0248	.3823	.6108	.6338
-.469	1.0258	.4034	.6271	.6499
-.521	1.0268	.4268	.6447	.6672
-.573	1.0279	.4760	.6805	.7022
-.625	1.0284	.5185	.7101	.7310
-.677	1.0289	.5648	.7409	.7606
-.729	1.0326	.6079	.7673	.7859
-.781	1.0362	.6584	.7971	.8142
-.833	1.0382	.6822	.8106	.8269
-.885	1.0401	.7379	.8423	.8565
-.937	1.0462	.7727	.8594	.8725
-.989	1.0523	.7964	.8700	.8822
-1.042	1.0420	.8427	.8993	.9092
-1.094	1.0316	.8757	.9213	.9293
-1.146	1.0316	.9017	.9349	.9417
-1.198	1.0316	.9134	.9409	.9471

(d) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 0^o$;
$p_\infty = 66\ 721.14$ N/m^2 (1393.50 lb/ft^2);
$q_\infty = 29\ 698.69$ N/m^2 (620.27 lb/ft^2);
$p_{t,\infty} = 101\ 443.90$ N/m^2 (2118.70 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0471	.8958	.9249	.9326
1.146	1.0478	.8738	.9132	.9219
1.094	1.0484	.8651	.9084	.9175
1.042	1.0487	.8340	.8918	.9022
.989	1.0490	.8135	.8806	.8920
.937	1.0444	.7938	.8718	.8839
.885	1.0397	.7674	.8591	.8721
.833	1.0376	.7363	.8424	.8565
.781	1.0355	.7064	.8259	.8411
.729	1.0332	.6827	.8129	.8289
.677	1.0309	.6577	.7987	.8156
.625	1.0289	.6198	.7762	.7942
.573	1.0269	.5914	.7589	.7777
.521	1.0261	.5697	.7451	.7645
.469	1.0254	.5477	.7308	.7508
.417	1.0274	.5137	.7071	.7280
.366	1.0293	.4973	.6951	.7163
.313	1.0325	.4735	.6772	.6989
.260	1.0357	.4729	.6757	.6974
.208	1.0407	.4348	.6464	.6687
.156	1.0457	.4170	.6315	.6541
-.156	1.0459	.4016	.6196	.6424
-.208	1.0378	.4265	.6411	.6635
-.260	1.0297	.4544	.6643	.6863
-.313	1.0267	.4680	.6752	.6969
-.366	1.0238	.4942	.6948	.7160
-.417	1.0256	.5109	.7058	.7267
-.469	1.0273	.5324	.7199	.7403
-.521	1.0273	.5477	.7301	.7502
-.573	1.0273	.5666	.7427	.7622
-.625	1.0289	.6070	.7681	.7865
-.677	1.0305	.6461	.7918	.8090
-.729	1.0321	.6600	.7997	.8164
-.781	1.0336	.6972	.8213	.8368
-.833	1.0362	.7317	.8403	.8546
-.885	1.0387	.7500	.8497	.8634
-.937	1.0424	.7890	.8700	.8822
-.989	1.0461	.8020	.8756	.8873
-1.042	1.0444	.8218	.8870	.8979
-1.094	1.0426	.8498	.9028	.9124
-1.146	1.0434	.8619	.9089	.9179
-1.198	1.0442	.8779	.9169	.9253

TABLE 4.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Continued

(e) $x/D = 7.00$; $y/D = 0.0$; $\alpha = 0^\circ$;

p_∞ = 66 567.92 N/m^2 (1390.30 lb/ft^2);
q_∞ = 29 840.89 N/m^2 (623.24 lb/ft^2);
$p_{t,\infty}$ = 101 496.57 N/m^2 (2119.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0426	.8744	.9158	.9243
1.146	1.0400	.8746	.9171	.9254
1.094	1.0374	.8650	.9131	.9219
1.042	1.0348	.8429	.9025	.9122
.989	1.0322	.8302	.8969	.9070
.937	1.0324	.8125	.8871	.8981
.885	1.0326	.7870	.8730	.8851
.833	1.0329	.7503	.8523	.8658
.781	1.0333	.7253	.8378	.8524
.729	1.0311	.6998	.8238	.8393
.677	1.0290	.6890	.8183	.8341
.625	1.0287	.6667	.8050	.8216
.573	1.0284	.6453	.7921	.8094
.521	1.0304	.6226	.7774	.7954
.469	1.0324	.6112	.7695	.7879
.417	1.0321	.5987	.7616	.7804
.366	1.0318	.5703	.7435	.7631
.313	1.0346	.5537	.7316	.7517
.260	1.0375	.5382	.7203	.7408
.208	1.0446	.5231	.7077	.7286
.156	1.0517	.4801	.6757	.6975
-.156	1.0491	.4667	.6670	.6891
-.208	1.0418	.4965	.6903	.7118
-.260	1.0346	.5342	.7186	.7392
-.313	1.0309	.5548	.7336	.7536
-.366	1.0273	.5659	.7422	.7619
-.417	1.0268	.5706	.7455	.7650
-.469	1.0263	.6052	.7679	.7864
-.521	1.0265	.6257	.7807	.7986
-.573	1.0268	.6339	.7858	.8034
-.625	1.0261	.6547	.7988	.8157
-.677	1.0254	.6716	.8093	.8256
-.729	1.0273	.6961	.8232	.8386
-.781	1.0292	.7093	.8302	.8452
-.833	1.0287	.7328	.8440	.8582
-.885	1.0282	.7683	.8644	.8771
-.937	1.0315	.7943	.8775	.8892
-.989	1.0349	.8144	.8871	.8980
-1.042	1.0256	.8409	.9055	.9149
-1.094	1.0163	.8703	.9254	.9330
-1.146	1.0163	.8921	.9369	.9435
-1.198	1.0163	.9032	.9427	.9487

(f) $x/D = 8.39$; $y/D = 0.0$; $\alpha = 0^\circ$;

p_∞ = 66 563.13 N/m^2 (1390.20 lb/ft^2);
q_∞ = 29 877.76 N/m^2 (624.01 lb/ft^2);
$p_{t,\infty}$ = 101 544.45 N/m^2 (2120.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0332	.8791	.9224	.9303
1.146	1.0358	.8654	.9141	.9228
1.094	1.0384	.8478	.9036	.9132
1.042	1.0361	.8264	.8931	.9035
.989	1.0339	.8106	.8854	.8965
.937	1.0329	.8074	.8842	.8953
.885	1.0318	.7826	.8709	.8831
.833	1.0319	.7654	.8612	.8742
.781	1.0321	.7466	.8505	.8642
.729	1.0303	.7322	.8430	.8572
.677	1.0286	.7255	.8399	.8543
.625	1.0286	.6998	.8249	.8403
.573	1.0285	.6805	.8134	.8295
.521	1.0299	.6741	.8090	.8254
.469	1.0312	.6562	.7977	.8147
.417	1.0329	.6473	.7916	.8090
.366	1.0345	.6312	.7811	.7990
.313	1.0380	.6153	.7699	.7884
.260	1.0414	.6125	.7669	.7855
.208	1.0497	.5721	.7383	.7581
.156	1.0580	.5243	.7040	.7251
-.156	1.0570	.5240	.7041	.7252
-.208	1.0478	.5719	.7388	.7586
-.260	1.0387	.6044	.7628	.7816
-.313	1.0350	.6086	.7668	.7854
-.366	1.0314	.6379	.7864	.8041
-.417	1.0300	.6336	.7843	.8021
-.469	1.0285	.6585	.8001	.8170
-.521	1.0280	.6684	.8064	.8229
-.573	1.0274	.6755	.8108	.8271
-.625	1.0286	.6900	.8191	.8348
-.677	1.0298	.6987	.8237	.8392
-.729	1.0305	.7210	.8365	.8511
-.781	1.0312	.7277	.8400	.8544
-.833	1.0305	.7461	.8509	.8646
-.885	1.0298	.7723	.8660	.8786
-.937	1.0348	.7817	.8691	.8815
-.989	1.0398	.7855	.8692	.8815
-1.042	1.0325	.8173	.8897	.9004
-1.094	1.0252	.8507	.9109	.9199
-1.146	1.0264	.8662	.9186	.9269
-1.198	1.0277	.8770	.9238	.9316

TABLE 4.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Continued

(g) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 66\ 711.56\ N/m^2$ ($1393.30\ lb/ft^2$);
$q_\infty = 29\ 793.01\ N/m^2$ ($622.24\ lb/ft^2$);
$p_{t,\infty} = 101\ 563.60\ N/m^2$ ($2121.20\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0393	.8664	.9130	.9217
1.146	1.0393	.8609	.9101	.9191
1.094	1.0393	.8430	.9006	.9104
1.042	1.0393	.8327	.8951	.9053
.989	1.0392	.8098	.8828	.8940
.937	1.0382	.7995	.8776	.8892
.885	1.0371	.7750	.8644	.8771
.833	1.0367	.7659	.8595	.8725
.781	1.0363	.7646	.8589	.8720
.729	1.0349	.7429	.8473	.8611
.677	1.0334	.7359	.8439	.8580
.625	1.0344	.7096	.8282	.8434
.573	1.0353	.7094	.8277	.8429
.521	1.0353	.6855	.8137	.8297
.469	1.0353	.6947	.8192	.8349
.417	1.0371	.6626	.7993	.8162
.366	1.0390	.6604	.7972	.8142
.313	1.0427	.6468	.7876	.8051
.260	1.0463	.6318	.7770	.7951
.208	1.0549	.6004	.7544	.7735
.156	1.0635	.5620	.7269	.7471
-.156	1.0536	.5532	.7246	.7449
-.208	1.0468	.5894	.7504	.7697
-.260	1.0399	.6298	.7782	.7962
-.313	1.0378	.6438	.7877	.8051
-.366	1.0356	.6605	.7986	.8155
-.417	1.0337	.6547	.7958	.8129
-.469	1.0318	.6609	.8003	.8171
-.521	1.0300	.6807	.8129	.8290
-.573	1.0283	.6898	.8190	.8347
-.625	1.0304	.7026	.8258	.8410
-.677	1.0326	.7090	.8286	.8437
-.729	1.0326	.7180	.8338	.8486
-.781	1.0327	.7348	.8435	.8576
-.833	1.0333	.7455	.8494	.8631
-.885	1.0338	.7661	.8608	.8737
-.937	1.0361	.7785	.8668	.8792
-.989	1.0384	.7922	.8734	.8854
-1.042	1.0352	.8073	.8831	.8943
-1.094	1.0320	.8351	.8996	.9094
-1.146	1.0310	.8499	.9079	.9171
-1.198	1.0301	.8634	.9155	.9240

(h) $x/D = 10.00$; $y/D\ 0.0$; $\alpha = 0^\circ$;
$p_\infty = 66\ 587.07\ N/m^2$ ($1390.70\ lb/ft^2$);
$q_\infty = 29\ 799.71\ N/m^2$ ($622.38\ lb/ft^2$);
$p_{t,\infty} = 101\ 458.27\ N/m^2$ ($2119.00\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0380	.8780	.9197	.9279
1.146	1.0378	.8653	.9131	.9219
1.094	1.0376	.8496	.9049	.9143
1.042	1.0372	.8390	.8994	.9093
.989	1.0368	.8289	.8941	.9045
.937	1.0364	.8093	.8837	.8948
.885	1.0360	.7876	.8719	.8840
.833	1.0365	.7864	.8710	.8832
.781	1.0370	.7736	.8637	.8764
.729	1.0367	.7462	.8484	.8622
.677	1.0364	.7363	.8429	.8571
.625	1.0360	.7283	.8385	.8530
.573	1.0356	.7179	.8326	.8475
.521	1.0364	.7163	.8314	.8463
.469	1.0373	.7154	.8305	.8455
.417	1.0401	.6834	.8106	.8268
.366	1.0428	.6739	.8039	.8205
.313	1.0442	.6593	.7946	.8117
.260	1.0456	.6587	.7937	.8109
.208	1.0558	.6216	.7673	.7858
.156	1.0660	.5740	.7338	.7538
-.156	1.0552	.5816	.7424	.7621
-.208	1.0481	.6323	.7767	.7948
-.260	1.0410	.6617	.7973	.8143
-.313	1.0385	.6789	.8085	.8249
-.366	1.0360	.6762	.8079	.8243
-.417	1.0349	.6807	.8110	.8272
-.469	1.0338	.6945	.8196	.8353
-.521	1.0329	.7097	.8289	.8440
-.573	1.0321	.7277	.8397	.8541
-.625	1.0312	.7245	.8382	.8527
-.677	1.0304	.7150	.8330	.8478
-.729	1.0309	.7428	.8488	.8626
-.781	1.0314	.7406	.8474	.8612
-.833	1.0322	.7643	.8605	.8735
-.885	1.0330	.7731	.8651	.8777
-.937	1.0350	.7875	.8723	.8844
-.989	1.0370	.7869	.8711	.8833
-1.042	1.0353	.8060	.8823	.8936
-1.094	1.0335	.8171	.8892	.8999
-1.146	1.0296	.8331	.8996	.9095
-1.198	1.0256	.8695	.9208	.9288

TABLE 4.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Concluded

(i) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 66\ 611.01\ N/m^2\ (1391.20\ lb/ft^2)$;
$q_\infty = 29\ 802.59\ N/m^2\ (622.44\ lb/ft^2)$;
$p_{t,\infty} = 101\ 486.99\ N/m^2\ (2119.60\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0385	.8781	.9196	.9277
1.146	1.0385	.8645	.9124	.9212
1.094	1.0385	.8651	.9127	.9215
1.042	1.0394	.8474	.9029	.9125
.989	1.0404	.8321	.8943	.9047
.937	1.0389	.8119	.8841	.8952
.885	1.0374	.8028	.8797	.8912
.833	1.0379	.7938	.8745	.8864
.781	1.0385	.7860	.8700	.8822
.729	1.0380	.7601	.8558	.8690
.677	1.0376	.7642	.8582	.8713
.625	1.0382	.7393	.8438	.8580
.573	1.0389	.7311	.8389	.8533
.521	1.0386	.7322	.8396	.8540
.469	1.0384	.7138	.8291	.8442
.417	1.0422	.7149	.8282	.8434
.366	1.0460	.6974	.8165	.8324
.313	1.0495	.6774	.8034	.8201
.260	1.0529	.6665	.7956	.8127
.208	1.0614	.6499	.7825	.8003
.156	1.0700	.5917	.7437	.7632
-.156	1.0613	.5767	.7371	.7570
-.208	1.0522	.6503	.7861	.8037
-.260	1.0431	.6701	.8015	.8183
-.313	1.0413	.6874	.8125	.8286
-.366	1.0396	.6838	.8111	.8273
-.417	1.0376	.6928	.8171	.8330
-.469	1.0355	.7063	.8258	.8411
-.521	1.0345	.7146	.8311	.8461
-.573	1.0335	.7226	.8361	.8508
-.625	1.0332	.7371	.8447	.8587
-.677	1.0328	.7355	.8439	.8580
-.729	1.0339	.7355	.8434	.8576
-.781	1.0350	.7476	.8499	.8636
-.833	1.0340	.7641	.8596	.8726
-.885	1.0331	.7790	.8684	.8807
-.937	1.0359	.7815	.8686	.8809
-.989	1.0386	.7870	.8705	.8827
-1.042	1.0345	.8068	.8831	.8944
-1.094	1.0304	.8351	.9003	.9101
-1.146	1.0293	.8393	.9030	.9126
-1.198	1.0283	.8541	.9114	.9203

TABLE 5.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT)

(a) x/D = 1.50; y/D = 0.0; $\alpha = 0^\circ$;
p_∞ = 53 621.10 N/m^2 (1119.90 lb/ft^2);
q_∞ = 37 492.16 N/m^2 (783.04 lb/ft^2);
$p_{t,\infty}$ = 101 434.33 N/m^2 (2118.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.7566	1.1229	1.2192	1.1719
1.146	.7501	1.1264	1.2254	1.1772
1.094	.7437	1.1287	1.2320	1.1821
1.042	.7378	1.1304	1.2378	1.1864
.989	.7319	1.1301	1.2426	1.1899
.937	.7191	1.1292	1.2531	1.1975
.885	.7062	1.0899	1.2423	1.1896
.833	.6983	.8046	1.0734	1.0601
.781	.6904	.4565	.8131	.8371
.729	.6885	.2117	.5545	.5895
.677	.6867	.0964	.3747	.4048
.625	.6860	.0532	.2784	.3026
.573	.6854	.0340	.2228	.2429
.521	.6840	.0276	.2007	.2190
.469	.6827	.0207	.1739	.1900
.417	.6829	.0126	.1360	.1487
.366	.6832	.0032	.0681	.0745
.313	.6835	0.0000	0.0000	0.0000
.260	.6839	0.0000	0.0000	0.0000
.208	.6848	0.0000	0.0000	0.0000
.156	.6857	.0021	.0554	.0606
-.156	.6857	0.0000	0.0000	0.0000
-.208	.6846	0.0000	0.0000	0.0000
-.260	.6836	0.0000	0.0000	0.0000
-.313	.6832	0.0000	0.0000	0.0000
-.366	.6828	.0047	.0828	.0906
-.417	.6822	.0060	.0935	.1023
-.469	.6816	.0149	.1480	.1618
-.521	.6829	.0243	.1885	.2057
-.573	.6842	.0326	.2181	.2378
-.625	.6830	.0542	.2818	.3062
-.677	.6819	.1000	.3830	.4135
-.729	.6852	.2113	.5554	.5904
-.781	.6885	.4251	.7858	.8121
-.833	.6956	.8037	1.0749	1.0613
-.885	.7027	1.0739	1.2363	1.1852
-.937	.7168	1.1285	1.2547	1.1987
-.989	.7309	1.1302	1.2435	1.1905
-1.042	.7434	1.1277	1.2316	1.1818
-1.094	.7559	1.1238	1.2193	1.1727
-1.146	.7552	1.1247	1.2204	1.1735
-1.198	.7545	1.1252	1.2212	1.1741

(b) x/D = 5.00; y/D = 0.0; $\alpha = 0^\circ$;
p_∞ = 53 649.83 N/m^2 (1120.50 lb/ft^2);
q_∞ = 37 513.22 N/m^2 (783.48 lb/ft^2);
$p_{t,\infty}$ = 101 486.99 N/m^2 (2119.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1410	.8886	.8825	.8992
1.146	1.1403	.8870	.8820	.8987
1.094	1.1396	.8865	.8820	.8987
1.042	1.1406	.8752	.8760	.8935
.989	1.1415	.8623	.8691	.8874
.937	1.1366	.8625	.8711	.8892
.885	1.1316	.8407	.8619	.8810
.833	1.1256	.8101	.8484	.8689
.781	1.1195	.7786	.8340	.8560
.729	1.1086	.7383	.8161	.8398
.677	1.0977	.6839	.7894	.8154
.625	1.0898	.6230	.7561	.7846
.573	1.0820	.5600	.7194	.7502
.521	1.0822	.4911	.6736	.7065
.469	1.0825	.4171	.6208	.6552
.417	1.0789	.3720	.5872	.6221
.366	1.0753	.3357	.5588	.5938
.313	1.0762	.2919	.5208	.5556
.260	1.0772	.2381	.4701	.5039
.208	1.0807	.2079	.4386	.4715
.156	1.0843	.1835	.4114	.4432
-.156	1.0850	.1775	.4044	.4359
-.208	1.0783	.2015	.4323	.4649
-.260	1.0716	.2558	.4886	.5228
-.313	1.0677	.2855	.5171	.5518
-.366	1.0638	.3158	.5448	.5798
-.417	1.0671	.3682	.5874	.6223
-.469	1.0703	.4078	.6172	.6517
-.521	1.0751	.4553	.6508	.6844
-.573	1.0798	.5166	.6917	.7238
-.625	1.0840	.5837	.7338	.7637
-.677	1.0882	.6521	.7741	.8013
-.729	1.0986	.7054	.8013	.8263
-.781	1.1091	.7340	.8135	.8374
-.833	1.1149	.7939	.8438	.8648
-.885	1.1207	.8259	.8584	.8779
-.937	1.1282	.8506	.8683	.8866
-.989	1.1358	.8594	.8699	.8881
-1.042	1.1210	.8845	.8883	.9043
-1.094	1.1061	.9081	.9061	.9199
-1.146	1.1061	.9126	.9083	.9218
-1.198	1.1061	.9145	.9093	.9227

TABLE 5.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT) - Continued

(c) x/D = 6.00; y/D = 0.0; $\alpha = 0^\circ$;

p_∞ = 53 678.56 N/m^2 (1121.10 lb/ft^2);
q_∞ = 37 476.36 N/m^2 (782.71 lb/ft^2);
$p_{t,\infty}$ = 101 453.48 N/m^2 (2118.90 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1538	.8704	.8685	.8868
1.146	1.1594	.8668	.8647	.8834
1.094	1.1649	.8573	.8579	.8774
1.042	1.1621	.8469	.8537	.8736
.989	1.1592	.8404	.8515	.8716
.937	1.1532	.8293	.8480	.8685
.885	1.1473	.8077	.8391	.8605
.833	1.1403	.7870	.8308	.8530
.781	1.1333	.7568	.8172	.8407
.729	1.1251	.7426	.8124	.8364
.677	1.1169	.6926	.7875	.8136
.625	1.1087	.6522	.7670	.7946
.573	1.1005	.6017	.7394	.7690
.521	1.0997	.5587	.7128	.7438
.469	1.0987	.5313	.6954	.7274
.417	1.0989	.4823	.6625	.6958
.366	1.0990	.4520	.6413	.6752
.313	1.1010	.4058	.6071	.6417
.260	1.1030	.3849	.5907	.6256
.208	1.1088	.3421	.5555	.5904
.156	1.1146	.3165	.5329	.5678
-.156	1.1100	.3029	.5224	.5572
-.208	1.1034	.3282	.5454	.5804
-.260	1.0967	.3688	.5799	.6148
-.313	1.0949	.4058	.6088	.6434
-.366	1.0931	.4302	.6273	.6615
-.417	1.0954	.4488	.6401	.6740
-.469	1.0977	.4962	.6724	.7053
-.521	1.0992	.5282	.6932	.7252
-.573	1.1007	.5795	.7256	.7560
-.625	1.1076	.6210	.7488	.7777
-.677	1.1146	.6595	.7692	.7967
-.729	1.1206	.7051	.7932	.8188
-.781	1.1267	.7435	.8124	.8364
-.833	1.1328	.7682	.8235	.8465
-.885	1.1390	.7965	.8363	.8580
-.937	1.1480	.8145	.8423	.8634
-.989	1.1570	.8317	.8479	.8684
-1.042	1.1552	.8432	.8543	.8742
-1.094	1.1535	.8624	.8647	.8834
-1.146	1.1501	.8655	.8675	.8859
-1.198	1.1468	.8792	.8756	.8931

(d) x/D = 7.00; y/D = 0.0; $\alpha = 0^\circ$;

p_∞ = 53 678.56 N/m^2 (1121.10 lb/ft^2);
q_∞ = 37 520.41 N/m^2 (783.63 lb/ft^2);
$p_{t,\infty}$ = 101 525.30 N/m^2 (2120.40 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1315	.8921	.8879	.9040
1.146	1.1314	.8870	.8855	.9018
1.094	1.1312	.8804	.8822	.8989
1.042	1.1311	.8761	.8801	.8971
.989	1.1309	.8511	.8675	.8859
.937	1.1334	.8373	.8595	.8788
.885	1.1359	.8101	.8445	.8654
.833	1.1326	.7964	.8386	.8601
.781	1.1292	.7669	.8241	.8470
.729	1.1223	.7382	.8110	.8352
.677	1.1153	.7083	.7969	.8223
.625	1.1114	.6824	.7836	.8100
.573	1.1074	.6472	.7645	.7924
.521	1.1074	.6179	.7470	.7761
.469	1.1073	.5832	.7257	.7561
.417	1.1056	.5393	.6984	.7302
.366	1.1039	.5230	.6883	.7206
.313	1.1069	.4937	.6678	.7009
.260	1.1099	.4761	.6549	.6885
.208	1.1185	.4415	.6283	.6625
.156	1.1272	.4037	.5984	.6332
-.156	1.1197	.3819	.5840	.6190
-.208	1.1108	.4299	.6221	.6565
-.260	1.1019	.4580	.6447	.6786
-.313	1.0985	.4860	.6651	.6983
-.366	1.0952	.5117	.6836	.7160
-.417	1.0958	.5324	.6970	.7289
-.469	1.0965	.5564	.7123	.7435
-.521	1.0996	.5910	.7331	.7631
-.573	1.1028	.6162	.7475	.7766
-.625	1.1045	.6448	.7641	.7920
-.677	1.1062	.6722	.7795	.8063
-.729	1.1110	.7158	.8027	.8275
-.781	1.1157	.7353	.8118	.8358
-.833	1.1171	.7577	.8235	.8465
-.885	1.1185	.7988	.8451	.8660
-.937	1.1242	.8228	.8555	.8753
-.989	1.1298	.8439	.8643	.8831
-1.042	1.1141	.8686	.8829	.8996
-1.094	1.0984	.8950	.9027	.9169
-1.146	1.0984	.9066	.9085	.9220
-1.198	1.0984	.9147	.9126	.9256

TABLE 5.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT) - Continued

(e) $x/D = 8.39$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 26\ 812.94\ N/m^2\ (560.00\ lb/ft^2)$;
$q_\infty = 18\ 776.24\ N/m^2\ (392.15\ lb/ft^2)$;
$p_{t,\infty} = 50\ 767.44\ N/m^2\ (1060.30\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3733	.5395	.6823	.7149
1.146	1.2515	.7543	.7733	.8006
1.094	1.1491	.8561	.8631	.8821
1.042	1.1411	.8453	.8607	.8799
.989	1.1331	.8414	.8617	.8808
.937	1.1329	.8244	.8530	.8731
.885	1.1327	.7991	.8399	.8613
.833	1.1325	.7778	.8287	.8512
.781	1.1324	.7552	.8167	.8403
.729	1.1235	.7375	.8101	.8344
.677	1.1149	.7153	.8010	.8261
.625	1.1115	.6865	.7369	.8132
.573	1.1081	.5594	.7772	.8042
.521	1.1079	.6478	.7646	.7926
.469	1.1077	.6236	.7503	.7792
.417	1.1078	.6015	.7368	.7666
.366	1.1080	.5874	.7238	.7544
.313	1.1123	.5563	.7071	.7385
.260	1.1177	.5310	.6893	.7216
.208	1.1273	.5027	.6671	.7003
.156	1.1369	.4557	.6331	.6673
-.156	1.1324	.4511	.6312	.6654
-.208	1.1219	.4975	.6659	.6992
-.260	1.1114	.5319	.6918	.7240
-.313	1.1076	.5588	.7103	.7416
-.366	1.1038	.5793	.7244	.7553
-.417	1.1037	.5939	.7335	.7635
-.469	1.1037	.6154	.7437	.7730
-.521	1.1059	.6330	.7566	.7851
-.573	1.1083	.6522	.7672	.7950
-.625	1.1100	.6797	.7825	.8091
-.677	1.1123	.6984	.7925	.8183
-.729	1.1174	.7184	.8018	.8268
-.781	1.1227	.7461	.8152	.8390
-.833	1.1256	.7565	.8252	.8481
-.885	1.1285	.7877	.8351	.8570
-.937	1.1334	.8018	.8411	.8624
-.989	1.1384	.8171	.8472	.8679
-1.042	1.1354	.8399	.8601	.8794
-1.094	1.1324	.8543	.8686	.8869
-1.146	1.1268	.8725	.8799	.8970
-1.198	1.1213	.8850	.8884	.9044

(f) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 53\ 745.59\ N/m^2\ (1122.50\ lb/ft^2)$;
$q_\infty = 37\ 475.88\ N/m^2\ (782.70\ lb/ft^2)$;
$p_{t,\infty} = 101\ 506.15\ N/m^2\ (2120.00\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1417	.8675	.8719	.8898
1.146	1.1420	.8641	.8699	.8880
1.094	1.1424	.8588	.8671	.8855
1.042	1.1427	.8436	.8592	.8785
.989	1.1431	.8252	.8496	.8700
.937	1.1403	.8095	.8426	.8636
.885	1.1374	.7890	.8329	.8549
.833	1.1349	.7752	.8265	.8492
.781	1.1324	.7580	.8182	.8416
.729	1.1252	.7479	.8152	.8389
.677	1.1181	.7241	.8048	.8294
.625	1.1173	.7074	.7957	.8211
.573	1.1164	.6770	.7787	.8055
.521	1.1148	.6561	.7672	.7948
.469	1.1132	.6444	.7609	.7889
.417	1.1126	.6166	.7444	.7736
.366	1.1120	.6062	.7383	.7679
.313	1.1169	.5863	.7245	.7549
.260	1.1218	.5530	.7021	.7337
.208	1.1333	.5108	.6714	.7043
.156	1.1449	.4787	.6466	.6804
-.156	1.1302	.4731	.6470	.6807
-.208	1.1192	.5202	.6817	.7142
-.260	1.1081	.5626	.7125	.7436
-.313	1.1064	.5813	.7249	.7552
-.366	1.1046	.5931	.7327	.7627
-.417	1.1035	.6007	.7378	.7674
-.469	1.1024	.6173	.7483	.7772
-.521	1.1022	.6393	.7616	.7896
-.573	1.1021	.6595	.7736	.8007
-.625	1.1057	.6749	.7813	.8076
-.677	1.1094	.6893	.7883	.8143
-.729	1.1130	.7100	.7987	.8238
-.781	1.1166	.7316	.8095	.8337
-.833	1.1190	.7571	.8226	.8456
-.885	1.1213	.7639	.8254	.8481
-.937	1.1267	.7933	.8391	.8605
-.989	1.1321	.8069	.8442	.8651
-1.042	1.1287	.8255	.8552	.8749
-1.094	1.1253	.8408	.8644	.8831
-1.146	1.1175	.8652	.8799	.8969
-1.198	1.1096	.8835	.8923	.9076

TABLE 5.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT) - Concluded

(g) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 0^\circ$;

$p_\infty = 53\ 692.92\ N/m^2$ ($1121.40\ lb/ft^2$);
$q_\infty = 37\ 504.61\ N/m^2$ ($783.30\ lb/ft^2$);
$p_{t,\infty} = 101\ 510.94\ N/m^2$ ($2120.10\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1427	.8665	.8708	.8889
1.146	1.1421	.8636	.8695	.8877
1.094	1.1416	.8600	.8680	.8863
1.042	1.1425	.8487	.8618	.8809
.989	1.1437	.8316	.8527	.8728
.937	1.1417	.8215	.8482	.8687
.885	1.1398	.7972	.8363	.8580
.833	1.1379	.7717	.8235	.8465
.781	1.1360	.7689	.8227	.8456
.729	1.1303	.7584	.8189	.8425
.677	1.1256	.7460	.8141	.8379
.625	1.1233	.7055	.7925	.8182
.573	1.1211	.7071	.7942	.8197
.521	1.1189	.6793	.7792	.8060
.469	1.1156	.6661	.7724	.7997
.417	1.1179	.6472	.7609	.7890
.366	1.1191	.6323	.7517	.7804
.313	1.1252	.6071	.7346	.7644
.260	1.1312	.5859	.7197	.7504
.208	1.1438	.5471	.6916	.7237
.156	1.1565	.4973	.6558	.6893
-.156	1.1343	.4980	.6626	.6958
-.208	1.1229	.5475	.6982	.7301
-.260	1.1114	.5865	.7264	.7568
-.313	1.1096	.5978	.7340	.7639
-.366	1.1078	.6140	.7445	.7737
-.417	1.1058	.6163	.7465	.7756
-.469	1.1038	.6373	.7598	.7881
-.521	1.1048	.6454	.7643	.7922
-.573	1.1057	.6638	.7748	.8019
-.625	1.1080	.6815	.7843	.8107
-.677	1.1103	.6914	.7891	.8151
-.729	1.1130	.7145	.8012	.8262
-.781	1.1158	.7323	.8102	.8344
-.833	1.1181	.7498	.8189	.8423
-.885	1.1205	.7662	.8269	.8495
-.937	1.1256	.7830	.8340	.8560
-.989	1.1306	.8025	.8425	.8636
-1.042	1.1252	.8246	.8561	.8758
-1.094	1.1197	.8482	.8704	.8885
-1.146	1.1134	.8638	.8808	.8977
-1.198	1.1071	.8790	.8910	.9067

(h) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 0^\circ$;

$p_\infty = 53\ 731.23\ N/m^2$ ($1122.20\ lb/ft^2$);
$q_\infty = 37\ 478.27\ N/m^2$ ($782.75\ lb/ft^2$);
$p_{t,\infty} = 101\ 501.36\ N/m^2$ ($2119.90\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1431	.8683	.8715	.8895
1.146	1.1431	.8661	.8704	.8885
1.094	1.1431	.8624	.8686	.8869
1.042	1.1451	.8454	.8592	.8785
.989	1.1471	.8394	.8554	.8752
.937	1.1443	.8188	.8459	.8667
.885	1.1414	.8135	.8442	.8651
.833	1.1420	.7759	.8243	.8471
.781	1.1425	.7724	.8222	.8453
.729	1.1366	.7553	.8152	.8389
.677	1.1308	.7500	.8144	.8382
.625	1.1298	.7362	.8072	.8317
.573	1.1288	.7083	.7921	.8179
.521	1.1269	.6962	.7860	.8122
.469	1.1250	.6869	.7814	.8080
.417	1.1256	.6668	.7697	.7972
.366	1.1252	.6499	.7597	.7876
.313	1.1311	.6285	.7454	.7740
.260	1.1360	.6024	.7282	.7584
.208	1.1498	.5620	.6991	.7308
.156	1.1636	.5125	.6636	.6968
-.156	1.1453	.5001	.6608	.6941
-.208	1.1318	.5563	.7011	.7327
-.260	1.1183	.5879	.7251	.7555
-.313	1.1157	.6103	.7396	.7691
-.366	1.1131	.6194	.7460	.7751
-.417	1.1113	.6433	.7608	.7889
-.469	1.1096	.6497	.7652	.7930
-.521	1.1097	.6620	.7724	.7997
-.573	1.1098	.6723	.7783	.8051
-.625	1.1111	.6926	.7895	.8155
-.677	1.1123	.7021	.7945	.8200
-.729	1.1145	.7183	.8028	.8276
-.781	1.1167	.7361	.8119	.8359
-.833	1.1177	.7455	.8167	.8403
-.885	1.1187	.7563	.8222	.8453
-.937	1.1243	.7806	.8333	.8553
-.989	1.1298	.7900	.8362	.8579
-1.042	1.1249	.8198	.8537	.8736
-1.094	1.1199	.8318	.8618	.8809
-1.146	1.1158	.8506	.8731	.8909
-1.198	1.1115	.8664	.8829	.8995

TABLE 6.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.84×10^6 PER METER (4.22×10^6 PER FOOT)

(a) $x/D = 1.50$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 41\ 818.62\ N/m^2$ ($873.40\ lb/ft^2$);
$q_\infty = 42\ 211.24\ N/m^2$ ($881.60\ lb/ft^2$);
$p_{t,\infty} = 101\ 515.72\ N/m^2$ ($2120.20\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	.7233	.9811	1.1646	1.1208
1.146	.7077	.9792	1.1763	1.1288
1.094	.6921	.9765	1.1878	1.1367
1.042	.6871	.9735	1.1903	1.1384
.989	.6821	.9707	1.1929	1.1402
.937	.6674	.9674	1.2037	1.1475
.885	.6526	.9623	1.2143	1.1546
.833	.6382	.9579	1.2251	1.1617
.781	.6239	.9523	1.2355	1.1686
.729	.6022	.9452	1.2528	1.1799
.677	.5805	.9246	1.2620	1.1858
.625	.5721	.7127	1.1162	1.0867
.573	.5636	.3615	.8309	.8351
.521	.5644	.1607	.5336	.5823
.469	.5652	.0616	.3300	.3688
.417	.5664	.0270	.2185	.2463
.366	.5675	.0118	.1440	.1630
.313	.5683	.0036	.0800	.0908
.260	.5691	0.0000	0.0000	0.0000
.208	.5702	0.0000	0.0000	0.0000
.156	.5712	0.0000	0.0000	0.0000
-.156	.5714	0.0000	0.0000	0.0000
-.208	.5709	0.0000	0.0000	0.0000
-.260	.5704	0.0000	0.0000	0.0000
-.313	.5716	.0004	.0250	.0284
-.366	.5729	.0050	.0931	.1056
-.417	.5716	.0220	.1960	.2213
-.469	.5704	.0548	.3099	.3470
-.521	.5725	.1529	.5168	.5653
-.573	.5746	.3607	.7923	.8275
-.625	.5815	.7047	1.1008	1.0756
-.677	.5883	.9274	1.2556	1.1816
-.729	.6104	.9438	1.2435	1.1738
-.781	.6326	.9523	1.2270	1.1630
-.833	.6438	.9561	1.2186	1.1574
-.885	.6551	.9600	1.2105	1.1520
-.937	.6652	.9654	1.2047	1.1481
-.989	.6753	.9695	1.1982	1.1437
-1.042	.6875	.9728	1.1895	1.1379
-1.094	.6997	.9762	1.1812	1.1322
-1.146	.7125	.9802	1.1729	1.1265
-1.198	.7253	.9809	1.1630	1.1196

(b) $x/D = 5.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 41\ 842.56\ N/m^2$ ($873.90\ ln/ft^2$);
$q_\infty = 42\ 190.17\ N/m^2$ ($881.16\ lb/ft^2$);
$p_{t,\infty} = 101\ 491.78\ N/m^2$ ($2119.70\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1797	.9268	.8864	.9084
1.146	1.2620	.8894	.8395	.8687
1.094	1.3443	.8486	.7945	.8294
1.042	1.3438	.8486	.7947	.8296
.989	1.3433	.8496	.7953	.8301
.937	1.3439	.8481	.7944	.8293
.885	1.3445	.8452	.7929	.8280
.833	1.3453	.8430	.7916	.8269
.781	1.3462	.8351	.7876	.8234
.729	1.3260	.8294	.7909	.8262
.677	1.3058	.8170	.7910	.8263
.625	1.2874	.8008	.7887	.8243
.573	1.2690	.7791	.7835	.8197
.521	1.2517	.7077	.7519	.7914
.469	1.2344	.6215	.7096	.7526
.417	1.2175	.5814	.6911	.7354
.366	1.2006	.5324	.6659	.7117
.313	1.1985	.4633	.6218	.6694
.260	1.1963	.4103	.5856	.6341
.208	1.2037	.3618	.5483	.5969
.156	1.2110	.3163	.5110	.5593
-.156	1.2028	.3070	.5052	.5534
-.208	1.1945	.3556	.5456	.5943
-.260	1.1862	.4017	.5819	.6304
-.313	1.1852	.4601	.6231	.6706
-.366	1.1843	.5115	.6572	.7034
-.417	1.1985	.5697	.6894	.7338
-.469	1.2128	.6179	.7138	.7565
-.521	1.2287	.6811	.7445	.7847
-.573	1.2446	.7397	.7709	.8085
-.625	1.2654	.7789	.7845	.8206
-.677	1.2862	.8129	.7950	.8290
-.729	1.3076	.8313	.7973	.8319
-.781	1.3291	.8399	.7949	.8298
-.833	1.3270	.8505	.8006	.8348
-.885	1.3249	.8558	.8037	.8376
-.937	1.3316	.8524	.8001	.8344
-.989	1.3383	.8505	.7972	.8318
-1.042	1.3116	.8650	.8121	.8449
-1.094	1.2850	.8776	.8264	.8574
-1.146	1.2850	.8772	.8262	.8572
-1.198	1.2850	.8787	.8269	.8578

TABLE 6.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.84×10^6 PER METER (4.22×10^6 PER FOOT) - Continued

(c) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 0^\circ$;

$p_\infty = 41\ 880.86$ N/m^2 (874.70 lb/ft^2);
$q_\infty = 42\ 162.40$ N/m^2 (880.58 lb/ft^2);
$p_{t,\infty} = 101\ 458.27$ N/m^2 (2119.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3434	.8460	.7936	.8286
1.146	1.3655	.8355	.7822	.8185
1.094	1.3877	.8238	.7705	.8080
1.042	1.3882	.8220	.7695	.8072
.989	1.3888	.8219	.7693	.8070
.937	1.3813	.8244	.7725	.8099
.885	1.3738	.8240	.7745	.8116
.833	1.3633	.8253	.7781	.8148
.781	1.3528	.8195	.7783	.8150
.729	1.3356	.8136	.7805	.8170
.677	1.3184	.8021	.7800	.8165
.625	1.2990	.7743	.7721	.8094
.573	1.2797	.7323	.7565	.7954
.521	1.2664	.6829	.7343	.7753
.469	1.2532	.6409	.7151	.7577
.417	1.2456	.5908	.6887	.7331
.366	1.2381	.5496	.6663	.7120
.313	1.2374	.4849	.6260	.6734
.260	1.2368	.4623	.6114	.6592
.208	1.2447	.4132	.5762	.6247
.156	1.2527	.3684	.5423	.5909
-.156	1.2389	.3558	.5359	.5845
-.208	1.2317	.4008	.5704	.6190
-.260	1.2245	.4414	.6004	.6485
-.313	1.2257	.4826	.6275	.6749
-.366	1.2268	.5183	.6500	.6965
-.417	1.2374	.5553	.6699	.7154
-.469	1.2479	.6024	.6948	.7388
-.521	1.2584	.6533	.7205	.7626
-.573	1.2689	.7054	.7456	.7856
-.625	1.2874	.7427	.7596	.7982
-.677	1.3060	.7644	.7650	.8032
-.729	1.3259	.7915	.7726	.8099
-.781	1.3459	.8077	.7747	.8118
-.833	1.3550	.8180	.7770	.8138
-.885	1.3641	.8240	.7772	.8140
-.937	1.3758	.8229	.7734	.8106
-.989	1.3875	.8187	.7681	.8059
-1.042	1.3883	.8206	.7688	.8066
-1.094	1.3891	.8217	.7691	.8068
-1.146	1.3758	.8291	.7763	.8132
-1.198	1.3625	.8363	.7834	.8196

(d) $x/D = 8.39$; $y/D = 0.0$; $\alpha = 0^\circ$;

$p_\infty = 20\ 938.04$ N/m^2 (437.30 lb/ft^2);
$q_\infty = 21\ 057.74$ N/m^2 (439.80 lb/ft^2);
$p_{t,\infty} = 50\ 686.04$ N/m^2 (1058.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.7260	.5965	.5879	.6362
1.146	1.5640	.7150	.6761	.7212
1.094	1.4021	.8156	.7627	.8010
1.042	1.3976	.8166	.7644	.8025
.989	1.3931	.8129	.7639	.8021
.937	1.3933	.8087	.7619	.8003
.885	1.3935	.7987	.7571	.7959
.833	1.3938	.7877	.7518	.7911
.781	1.3940	.7686	.7425	.7828
.729	1.3803	.7585	.7413	.7816
.677	1.3666	.7393	.7355	.7763
.625	1.3590	.7113	.7235	.7653
.573	1.3514	.6760	.7073	.7504
.521	1.3469	.6449	.6920	.7361
.469	1.3424	.6129	.6757	.7208
.417	1.3385	.5849	.6610	.7069
.366	1.3349	.5515	.6428	.6895
.313	1.3373	.5188	.6229	.6703
.260	1.3398	.4826	.6001	.6482
.208	1.3507	.4482	.5760	.6245
.156	1.3617	.3898	.5351	.5836
-.156	1.3508	.3851	.5339	.5824
-.208	1.3355	.4373	.5714	.6199
-.260	1.3282	.4790	.6005	.6486
-.313	1.3257	.5131	.6221	.6696
-.366	1.3231	.5413	.6396	.6865
-.417	1.3266	.5663	.6533	.6996
-.469	1.3301	.5917	.6670	.7126
-.521	1.3363	.6252	.6840	.7286
-.573	1.3426	.6510	.6964	.7402
-.625	1.3506	.6738	.7063	.7495
-.677	1.3586	.7054	.7206	.7627
-.729	1.3674	.7334	.7324	.7735
-.781	1.3762	.7566	.7415	.7818
-.833	1.3807	.7712	.7474	.7872
-.885	1.3852	.7841	.7524	.7917
-.937	1.3906	.7949	.7561	.7950
-.989	1.3960	.8052	.7595	.7981
-1.042	1.3915	.8143	.7650	.8031
-1.094	1.3870	.8219	.7698	.8074
-1.146	1.3737	.8304	.7775	.8143
-1.198	1.3604	.8397	.7857	.8215

TABLE 6.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.84×10^6 PER METER (4.22×10^6 PER FOOT) - Continued

(e) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 41\ 856.92$ N/m^2 (874.20 lb/ft^2);
$q_\infty = 42\ 196.87$ N/m^2 (881.30 lb/ft^2);
$p_{t,\infty} = 101\ 515.72$ N/m^2 (2120.20 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3985	.8142	.7630	.8014
1.146	1.4011	.8146	.7625	.8009
1.094	1.4038	.8117	.7604	.7990
1.042	1.4064	.8078	.7579	.7967
.989	1.4091	.8020	.7544	.7936
.937	1.4060	.8026	.7555	.7946
.885	1.4029	.7925	.7516	.7911
.833	1.4003	.7837	.7481	.7879
.781	1.3978	.7711	.7428	.7831
.729	1.3882	.7610	.7404	.7809
.677	1.3787	.7390	.7321	.7733
.625	1.3719	.7213	.7251	.7669
.573	1.3651	.6916	.7118	.7546
.521	1.3598	.6575	.6953	.7394
.469	1.3544	.6268	.6803	.7253
.417	1.3486	.6102	.6727	.7181
.366	1.3428	.5737	.6537	.7000
.313	1.3453	.5416	.6345	.6816
.260	1.3478	.5165	.6190	.6667
.208	1.3598	.4724	.5894	.6378
.156	1.3718	.4060	.5440	.5927
-.156	1.3421	.4079	.5513	.6000
-.208	1.3308	.4632	.5900	.6383
-.260	1.3196	.4986	.6147	.6625
-.313	1.3197	.5286	.6329	.6801
-.365	1.3199	.5496	.6453	.6920
-.417	1.3217	.5723	.6580	.7042
-.469	1.3234	.5982	.6723	.7178
-.521	1.3271	.6228	.6850	.7297
-.573	1.3309	.6443	.6958	.7397
-.625	1.3371	.6676	.7066	.7498
-.677	1.3432	.7014	.7226	.7646
-.729	1.3523	.7149	.7271	.7687
-.781	1.3613	.7514	.7430	.7832
-.833	1.3639	.7663	.7495	.7892
-.885	1.3665	.7812	.7561	.7951
-.937	1.3738	.7934	.7599	.7986
-.989	1.3811	.8041	.7630	.8014
-1.042	1.3774	.8169	.7701	.8078
-1.094	1.3737	.8222	.7736	.8109
-1.146	1.3538	.8373	.7864	.8223
-1.198	1.3339	.8506	.7985	.8330

(f) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 41\ 890.44$ N/m^2 (874.90 lb/ft^2);
$q_\infty = 42\ 190.65$ N/m^2 (881.17 lb/ft^2);
$p_{t,\infty} = 101\ 520.51$ N/m^2 (2120.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3109	.8639	.8118	.8446
1.146	1.3438	.8457	.7933	.8283
1.094	1.3758	.8274	.7752	.8123
1.042	1.3804	.8217	.7715	.8090
.989	1.3840	.8143	.7670	.8050
.937	1.3805	.8159	.7688	.8065
.885	1.3771	.8050	.7646	.8027
.833	1.3728	.8001	.7634	.8017
.781	1.3686	.7904	.7600	.7986
.729	1.3586	.7822	.7588	.7975
.677	1.3486	.7551	.7483	.7880
.625	1.3443	.7476	.7457	.7857
.573	1.3400	.7117	.7288	.7703
.521	1.3323	.6867	.7180	.7603
.469	1.3245	.6660	.7091	.7521
.417	1.3199	.6454	.6993	.7430
.366	1.3154	.6242	.6888	.7332
.313	1.3174	.5969	.6731	.7184
.260	1.3194	.5611	.6521	.6985
.208	1.3325	.5119	.6198	.6674
.156	1.3457	.4649	.5878	.6362
-.156	1.3085	.4533	.5886	.6369
-.208	1.2950	.5126	.6292	.6765
-.260	1.2815	.5473	.6535	.6998
-.313	1.2820	.5647	.6637	.7095
-.366	1.2824	.5874	.6768	.7219
-.417	1.2820	.5992	.6837	.7284
-.469	1.2816	.6232	.6973	.7411
-.521	1.2855	.6559	.7143	.7569
-.573	1.2894	.6704	.7211	.7632
-.625	1.2952	.6911	.7305	.7718
-.677	1.3011	.7080	.7377	.7784
-.729	1.3121	.7357	.7488	.7885
-.781	1.3230	.7507	.7532	.7925
-.833	1.3270	.7736	.7635	.8018
-.885	1.3309	.7913	.7711	.8086
-.937	1.3372	.8076	.7771	.8140
-.989	1.3435	.8178	.7802	.8167
-1.042	1.3404	.8270	.7855	.8214
-1.094	1.3374	.8371	.7912	.8265
-1.146	1.3124	.8534	.8064	.8399
-1.198	1.2875	.8714	.8227	.8541

TABLE 6.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D IN THE WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.84×10^6 PER METER (4.22×10^6 PER FOOT) - Concluded

(g) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 0^\circ$;
$p_\infty = 41\ 861.71\ N/m^2$ ($874.30\ lb/ft^2$);
$q_\infty = 42\ 145.64\ N/m^2$ ($880.23\ lb/ft^2$);
$p_{t,\infty} = 101\ 415.17\ N/m^2$ ($2118.10\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0745	.9607	.9456	.9570
1.146	1.0745	.9617	.9461	.9574
1.094	1.0745	.9606	.9455	.9569
1.042	1.1725	.9222	.8869	.9088
.989	1.2706	.8722	.8285	.8592
.937	1.3166	.8468	.8020	.8360
.885	1.3626	.8129	.7724	.8097
.833	1.3629	.8001	.7662	.8042
.781	1.3632	.7930	.7627	.8011
.729	1.3480	.7853	.7633	.8016
.677	1.3328	.7737	.7619	.8004
.625	1.3256	.7593	.7568	.7957
.573	1.3183	.7436	.7510	.7905
.521	1.3088	.7209	.7422	.7825
.469	1.2993	.6969	.7324	.7735
.417	1.2941	.6775	.7235	.7654
.366	1.2889	.6490	.7096	.7526
.313	1.2893	.6348	.7017	.7452
.260	1.2897	.6093	.6873	.7318
.208	1.3047	.5681	.6599	.7059
.156	1.3196	.5009	.6161	.6638
-.156	1.2894	.4757	.6074	.6554
-.208	1.2742	.5441	.6535	.6998
-.260	1.2591	.5896	.6843	.7290
-.313	1.2576	.6056	.6939	.7380
-.366	1.2560	.6177	.7013	.7448
-.417	1.2563	.6378	.7125	.7552
-.469	1.2566	.6457	.7168	.7592
-.521	1.2603	.6707	.7295	.7709
-.573	1.2641	.6938	.7408	.7813
-.625	1.2689	.7036	.7446	.7847
-.677	1.2738	.7189	.7512	.7907
-.729	1.2824	.7348	.7570	.7959
-.781	1.2910	.7539	.7642	.8023
-.833	1.2960	.7741	.7729	.8102
-.885	1.3009	.7911	.7798	.8164
-.937	1.3075	.8054	.7848	.8208
-.989	1.3141	.8184	.7891	.8247
-1.042	1.2713	.8514	.8183	.8503
-1.094	1.2286	.8789	.8458	.8741
-1.146	1.2113	.8914	.8578	.8843
-1.198	1.1940	.9055	.8708	.8953

TABLE 7.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT)

(a) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 5^\circ$;
p_∞ = 98 853.58 N/m^2 (2064.60 lb/ft^2);
q_∞ = 2627.19 N/m^2 (54.87 lb/ft^2);
$p_{t,\infty}$ = 101 506.15 N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0006	.8925	.9444	.9448
1.146	1.0007	.8605	.9273	.9278
1.094	1.0008	.8654	.9299	.9304
1.042	1.0009	.8398	.9160	.9165
.989	1.0010	.8141	.9019	.9025
.937	1.0011	.8198	.9050	.9056
.885	1.0011	.7514	.8663	.8671
.833	1.0010	.7642	.8738	.8745
.781	1.0009	.7457	.8632	.8640
.729	1.0010	.7207	.8486	.8495
.677	1.0010	.7157	.8456	.8465
.625	1.0009	.6736	.8204	.8214
.573	1.0008	.6915	.8312	.8322
.521	1.0008	.7172	.8465	.8474
.469	1.0008	.6715	.8191	.8201
.417	1.0008	.6736	.8204	.8214
.366	1.0009	.6844	.8269	.8279
.313	1.0012	.6679	.8168	.8176
.260	1.0014	.6514	.8065	.8076
.208	1.0018	.6291	.7925	.7936
.156	1.0022	.5840	.7634	.7646
-.156	1.0028	.5710	.7546	.7558
-.208	1.0022	.6183	.7855	.7866
-.260	1.0016	.6713	.8187	.8197
-.313	1.0014	.6821	.8253	.8263
-.366	1.0012	.6986	.8353	.8363
-.417	1.0012	.7221	.8493	.8502
-.469	1.0011	.7200	.8480	.8489
-.521	1.0011	.7186	.8472	.8481
-.573	1.0011	.7628	.8729	.8737
-.625	1.0011	.7863	.8863	.8870
-.677	1.0012	.7870	.8866	.8873
-.729	1.0011	.8283	.9096	.9102
-.781	1.0011	.8127	.9010	.9016
-.833	1.0012	.8305	.9107	.9113
-.885	1.0014	.8368	.9142	.9147
-.937	1.0015	.8610	.9272	.9277
-.989	1.0016	.8567	.9249	.9254
-1.042	1.0015	.8966	.9462	.9465
-1.094	1.0014	.9108	.9537	.9540
-1.146	1.0013	.9208	.9590	.9592
-1.198	1.0012	.9450	.9715	.9717

(b) $x/D = 7.00$; $y/D = 0.0$; $\alpha = 5^\circ$;
p_∞ = 98 695.58 N/m^2 (2061.30 lb/ft^2);
q_∞ = 2774.18 N/m^2 (57.94 lb/ft^2);
$p_{t,\infty}$ = 101 496.57 N/m^2 (2119.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0005	.8777	.9366	.9370
1.146	1.0007	.8467	.9198	.9204
1.094	1.0008	.8480	.9205	.9211
1.042	1.0009	.7920	.8896	.8903
.989	1.0011	.8116	.9004	.9011
.937	1.0009	.8048	.8967	.8974
.885	1.0008	.8062	.8975	.8982
.833	1.0008	.8055	.8971	.8978
.781	1.0009	.8049	.8968	.8975
.729	1.0009	.7725	.8785	.8793
.677	1.0009	.7563	.8693	.8701
.625	1.0011	.7360	.8575	.8584
.573	1.0012	.7184	.8471	.8480
.521	1.0011	.7137	.8443	.8453
.469	1.0011	.6928	.8319	.8329
.417	1.0012	.6968	.8342	.8352
.366	1.0014	.7035	.8382	.8391
.313	1.0016	.6616	.8127	.8138
.260	1.0018	.6656	.8151	.8162
.208	1.0023	.6269	.7909	.7921
.156	1.0028	.5747	.7570	.7583
-.156	1.0028	.5937	.7694	.7707
-.208	1.0022	.6615	.8124	.8135
-.260	1.0016	.6859	.8276	.8286
-.313	1.0015	.7001	.8361	.8371
-.366	1.0015	.7224	.8493	.8502
-.417	1.0012	.7279	.8526	.8536
-.469	1.0009	.7657	.8747	.8755
-.521	1.0010	.7536	.8676	.8685
-.573	1.0011	.7684	.8761	.8769
-.625	1.0011	.7711	.8777	.8785
-.677	1.0010	.7954	.8914	.8921
-.729	1.0009	.7967	.8922	.8929
-.781	1.0009	.8251	.9079	.9086
-.833	1.0010	.8533	.9233	.9238
-.885	1.0011	.8493	.9210	.9216
-.937	1.0012	.8533	.9232	.9237
-.989	1.0014	.8762	.9354	.9359
-1.042	1.0014	.8849	.9400	.9405
-1.094	1.0015	.8586	.9259	.9265
-1.146	1.0013	.9125	.9546	.9550
-1.198	1.0012	.9206	.9589	.9592

TABLE 7.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT) - Continued

(c) x/D = 8.39; y/D = 0.0; $\alpha = 5^\circ$;
p_∞ = 98 719.52 N/m^2 (2061.80 lb/ft^2);
q_∞ = 2699.01 N/m^2 (56.37 lb/ft^2);
$p_{t,\infty}$ = 101 448.69 N/m^2 (2118.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0005	.8744	.9349	.9353
1.146	1.0007	.8792	.9373	.9377
1.094	1.0010	.8535	.9234	.9239
1.042	1.0010	.8341	.9128	.9134
.989	1.0010	.7981	.8929	.8936
.937	1.0010	.8140	.9018	.9024
.885	1.0010	.7883	.8874	.8882
.833	1.0010	.7793	.8824	.8831
.781	1.0009	.8036	.8960	.8967
.729	1.0010	.7828	.8843	.8851
.677	1.0011	.7675	.8756	.8764
.625	1.0012	.7626	.8728	.8736
.573	1.0012	.7661	.8747	.8755
.521	1.0012	.7446	.8624	.8633
.469	1.0011	.7564	.8693	.8701
.417	1.0013	.7369	.8579	.8588
.365	1.0015	.7230	.8497	.8506
.313	1.0017	.7181	.8467	.8477
.260	1.0018	.7021	.8372	.8382
.208	1.0025	.6659	.8150	.8160
.156	1.0032	.5934	.7691	.7703
-.156	1.0028	.6352	.7959	.7970
-.208	1.0022	.6847	.8265	.8276
-.260	1.0016	.7230	.8496	.8505
-.313	1.0014	.7536	.8675	.8683
-.366	1.0013	.7564	.8691	.8700
-.417	1.0012	.7626	.8728	.8736
-.469	1.0011	.7828	.8843	.8850
-.521	1.0011	.7599	.8712	.8720
-.573	1.0011	.8008	.8944	.8951
-.625	1.0011	.8174	.9036	.9043
-.677	1.0011	.7980	.8928	.8935
-.729	1.0012	.7918	.8893	.8900
-.781	1.0012	.8188	.9044	.9050
-.833	1.0012	.8347	.9131	.9137
-.885	1.0012	.8396	.9157	.9163
-.937	1.0013	.8264	.9085	.9091
-.989	1.0015	.8437	.9178	.9184
-1.042	1.0014	.8617	.9277	.9282
-1.094	1.0012	.8742	.9344	.9349
-1.146	1.0012	.8874	.9414	.9419
-1.198	1.0011	.8812	.9382	.9386

(d) x/D = 9.00; y/D = 0.0; $\alpha = 5^\circ$;
p_∞ = 98 820.06 N/m^2 (2063.90 lb/ft^2);
q_∞ = 2647.30 N/m^2 (55.29 lb/ft^2);
$p_{t,\infty}$ = 101 491.78 N/m^2 (2119.70 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0008	.8872	.9415	.9420
1.146	1.0010	.8512	.9221	.9226
1.094	1.0012	.8151	.9023	.9029
1.042	1.0011	.8088	.8988	.8995
.989	1.0010	.8279	.9094	.9100
.937	1.0009	.7996	.8938	.8945
.885	1.0008	.8166	.9033	.9039
.833	1.0010	.7840	.8850	.8857
.781	1.0012	.7967	.8921	.8928
.729	1.0012	.7621	.8725	.8733
.677	1.0011	.7642	.8737	.8745
.625	1.0013	.7663	.8748	.8756
.573	1.0014	.7712	.8776	.8783
.521	1.0013	.7635	.8732	.8740
.469	1.0012	.7614	.8720	.8728
.417	1.0014	.7408	.8601	.8609
.366	1.0016	.7316	.8546	.8555
.313	1.0017	.7096	.8416	.8426
.260	1.0019	.7329	.8553	.8562
.208	1.0025	.6875	.8281	.8291
.156	1.0031	.6022	.7748	.7760
-.156	1.0028	.6491	.8046	.8057
-.208	1.0023	.6733	.8196	.8207
-.260	1.0018	.7259	.8512	.8521
-.313	1.0016	.7535	.8673	.8682
-.366	1.0015	.7500	.8654	.8662
-.417	1.0014	.7818	.8836	.8843
-.469	1.0013	.7939	.8904	.8911
-.521	1.0013	.7755	.8800	.8808
-.573	1.0014	.7797	.8824	.8832
-.625	1.0012	.8059	.8972	.8979
-.677	1.0010	.8038	.8961	.8968
-.729	1.0011	.8300	.9105	.9111
-.781	1.0011	.8137	.9016	.9022
-.833	1.0012	.8201	.9050	.9057
-.885	1.0012	.8349	.9132	.9137
-.937	1.0014	.8448	.9185	.9190
-.989	1.0015	.8546	.9238	.9243
-1.042	1.0013	.8313	.9112	.9118
-1.094	1.0012	.8674	.9308	.9312
-1.146	1.0011	.8688	.9316	.9321
-1.198	1.0010	.8985	.9474	.9478

TABLE 7.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT) - Concluded

(e) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 5^\circ$;
$p_\infty = 98\ 738.67\ N/m^2\ (2062.20\ lb/ft^2)$;
$q_\infty = 2725.82\ N/m^2\ (56.93\ lb/ft^2)$;
$p_{t,\infty} = 101\ 491.78\ N/m^2\ (2119.70\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0007	.8178	.9040	.9047
1.146	1.0011	.8685	.9314	.9319
1.094	1.0014	.8095	.8991	.8997
1.042	1.0013	.8212	.9056	.9063
.989	1.0011	.8301	.9106	.9112
.937	1.0011	.7979	.8927	.8934
.885	1.0012	.8040	.8961	.8968
.833	1.0012	.7601	.8713	.8721
.781	1.0012	.7793	.8823	.8830
.729	1.0011	.7649	.8741	.8749
.677	1.0011	.7532	.8674	.8683
.625	1.0013	.7793	.8822	.8830
.573	1.0015	.7642	.8735	.8743
.521	1.0014	.7697	.8767	.8775
.469	1.0013	.7724	.8783	.8791
.417	1.0015	.7380	.8584	.8593
.366	1.0017	.7421	.8607	.8616
.313	1.0019	.7297	.8534	.8543
.260	1.0021	.7228	.8493	.8502
.208	1.0025	.6753	.8207	.8218
.156	1.0029	.6167	.7841	.7853
-.156	1.0031	.6414	.7997	.8008
-.208	1.0024	.7028	.8373	.8383
-.260	1.0018	.7586	.8702	.8710
-.313	1.0018	.7400	.8595	.8604
-.366	1.0017	.7572	.8694	.8703
-.417	1.0015	.7662	.8747	.8755
-.469	1.0012	.7862	.8861	.8869
-.521	1.0013	.7848	.8853	.8861
-.573	1.0013	.7834	.8845	.8853
-.625	1.0014	.8198	.9048	.9054
-.677	1.0014	.8012	.8945	.8952
-.729	1.0014	.7992	.8933	.8940
-.781	1.0014	.8136	.9014	.9020
-.833	1.0013	.7992	.8934	.8941
-.885	1.0013	.8260	.9082	.9089
-.937	1.0013	.8253	.9079	.9085
-.989	1.0013	.8273	.9090	.9096
-1.042	1.0013	.8562	.9247	.9252
-1.094	1.0012	.8438	.9180	.9186
-1.146	1.0012	.8603	.9270	.9275
-1.198	1.0011	.8932	.9446	.9450

(f) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 5^\circ$;
$p_\infty = 98\ 709.94\ N/m^2\ (2061.60\ lb/ft^2)$;
$q_\infty = 2740.67\ N/m^2\ (57.24\ lb/ft^2)$;
$p_{t,\infty} = 101\ 482.21\ N/m^2\ (2119.50\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0010	.8776	.9363	.9368
1.146	1.0011	.8326	.9120	.9126
1.094	1.0011	.8504	.9216	.9222
1.042	1.0013	.8251	.9077	.9083
.989	1.0016	.8161	.9027	.9033
.937	1.0015	.8182	.9039	.9045
.885	1.0013	.7984	.8930	.8937
.833	1.0015	.7936	.8902	.8909
.781	1.0016	.7916	.8890	.8897
.729	1.0016	.7923	.8894	.8901
.677	1.0016	.7902	.8882	.8890
.625	1.0016	.8175	.9034	.9041
.573	1.0017	.7820	.8835	.8843
.521	1.0017	.7806	.8827	.8835
.469	1.0018	.7956	.8912	.8919
.417	1.0019	.7874	.8865	.8873
.366	1.0019	.7683	.8757	.8765
.313	1.0022	.7498	.8650	.8658
.260	1.0024	.7504	.8652	.8661
.208	1.0029	.6977	.8341	.8351
.156	1.0033	.6339	.7949	.7960
-.156	1.0032	.6490	.8043	.8054
-.208	1.0026	.7162	.8452	.8462
-.260	1.0019	.7533	.8671	.8679
-.313	1.0018	.7656	.8742	.8750
-.366	1.0017	.7861	.8859	.8866
-.417	1.0016	.7793	.8820	.8828
-.469	1.0016	.7970	.8921	.8928
-.521	1.0016	.8025	.8951	.8958
-.573	1.0016	.7861	.8859	.8867
-.625	1.0016	.8114	.9001	.9007
-.677	1.0016	.7902	.8882	.8890
-.729	1.0014	.8387	.9152	.9157
-.781	1.0013	.8353	.9134	.9140
-.833	1.0013	.8414	.9167	.9173
-.885	1.0014	.8394	.9155	.9161
-.937	1.0015	.8646	.9292	.9297
-.989	1.0015	.8489	.9207	.9212
-1.042	1.0015	.8509	.9218	.9223
-1.094	1.0016	.8803	.9375	.9379
-1.146	1.0014	.8796	.9372	.9377
-1.198	1.0013	.8626	.9282	.9287

TABLE 8.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT)

(a) x/D = 6.00; y/D = 0.0; $\alpha = 5^\circ$;

p_∞ = 90 924.61 N/m^2 (1899.00 lb/ft^2);
q_∞ = 10 174.55 N/m^2 (212.50 lb/ft^2);
$p_{t,\infty}$ = 101 510.94 N/m^2 (2120.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0043	.8927	.9428	.9444
1.146	1.0045	.8732	.9323	.9342
1.094	1.0048	.8578	.9240	.9261
1.042	1.0047	.8143	.9002	.9029
.989	1.0047	.8309	.9094	.9119
.937	1.0041	.7960	.8904	.8933
.885	1.0035	.7674	.8745	.8777
.833	1.0043	.7449	.8612	.8647
.781	1.0051	.7046	.8373	.8412
.729	1.0041	.6967	.8329	.8369
.677	1.0032	.7220	.8483	.8521
.625	1.0035	.6709	.8176	.8219
.573	1.0039	.6671	.8152	.8195
.521	1.0036	.6565	.8088	.8131
.469	1.0034	.6544	.8076	.8120
.417	1.0035	.6391	.7980	.8026
.366	1.0036	.6387	.7978	.8023
.313	1.0045	.6199	.7856	.7903
.260	1.0054	.6294	.7912	.7959
.208	1.0073	.5765	.7565	.7615
.156	1.0093	.5526	.7400	.7452
-.156	1.0113	.5779	.7560	.7610
-.208	1.0087	.6199	.7839	.7887
-.260	1.0061	.6568	.8080	.8123
-.313	1.0058	.6467	.8018	.8063
-.366	1.0055	.6770	.8206	.8247
-.417	1.0055	.6926	.8299	.8340
-.469	1.0055	.7074	.8388	.8427
-.521	1.0050	.7276	.8508	.8545
-.573	1.0045	.7195	.8463	.8500
-.625	1.0048	.7612	.8704	.8737
-.677	1.0050	.7572	.8680	.8713
-.729	1.0057	.7972	.8903	.8932
-.781	1.0064	.8056	.8947	.8975
-.833	1.0065	.8226	.9040	.9066
-.885	1.0067	.8361	.9114	.9138
-.937	1.0075	.8560	.9218	.9239
-.989	1.0082	.8752	.9317	.9336
-1.042	1.0077	.8892	.9393	.9410
-1.094	1.0072	.9045	.9476	.9491
-1.146	1.0071	.9116	.9514	.9528
-1.198	1.0069	.9264	.9592	.9604

(b) x/D = 7.00; y/D = 0.0; $\alpha = 5^\circ$;

p_∞ = 90 905.46 N/m^2 (1898.60 lb/ft^2);
q_∞ = 10 162.11 N/m^2 (212.24 lb/ft^2);
$p_{t,\infty}$ = 101 482.21 N/m^2 (2119.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0027	.8659	.9293	.9313
1.146	1.0035	.8479	.9192	.9214
1.094	1.0043	.8480	.9189	.9211
1.042	1.0046	.8323	.9102	.9126
.989	1.0048	.8017	.8933	.8961
.937	1.0045	.8072	.8964	.8991
.885	1.0043	.7747	.8783	.8814
.833	1.0043	.7652	.8728	.8761
.781	1.0044	.7444	.8609	.8644
.729	1.0044	.7258	.8501	.8538
.677	1.0044	.7306	.8529	.8565
.625	1.0047	.7196	.8463	.8501
.573	1.0050	.6874	.8270	.8311
.521	1.0048	.7090	.8400	.8439
.469	1.0046	.6910	.8293	.8334
.417	1.0050	.6887	.8278	.8318
.366	1.0055	.6863	.8262	.8303
.313	1.0064	.6544	.8064	.8108
.260	1.0073	.6643	.8121	.8164
.208	1.0093	.6214	.7846	.7893
.156	1.0112	.5797	.7572	.7622
-.156	1.0118	.6058	.7738	.7786
-.208	1.0095	.6424	.7977	.8022
-.260	1.0072	.6866	.8257	.8298
-.313	1.0069	.7153	.8429	.8467
-.366	1.0065	.6952	.8310	.8350
-.417	1.0061	.7139	.8424	.8462
-.469	1.0055	.7447	.8606	.8641
-.521	1.0055	.7397	.8577	.8613
-.573	1.0055	.7637	.8715	.8748
-.625	1.0054	.7641	.8718	.8750
-.677	1.0053	.7785	.8800	.8831
-.729	1.0053	.7875	.8851	.8881
-.781	1.0053	.8196	.9029	.9055
-.833	1.0056	.8555	.9224	.9245
-.885	1.0059	.8263	.9063	.9088
-.937	1.0067	.8445	.9159	.9182
-.989	1.0075	.8571	.9223	.9245
-1.042	1.0066	.8878	.9391	.9409
-1.094	1.0058	.9025	.9473	.9488
-1.146	1.0056	.9021	.9471	.9487
-1.198	1.0055	.9185	.9558	.9570

TABLE 8.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Continued

(c) x/D = 8.39; y/D = 0.0; $\alpha = 5^{\circ}$;
p_∞ = 90 848.00 N/m^2 (1897.40 lb/ft^2);
q_∞ = 10 155.40 N/m^2 (212.10 lb/ft^2);
$p_{t,\infty}$ = 101 415.17 N/m^2 (2118.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0030	.8728	.9328	.9347
1.146	1.0037	.8717	.9319	.9338
1.094	1.0044	.8510	.9205	.9227
1.042	1.0046	.8319	.9100	.9125
.989	1.0048	.8233	.9052	.9078
.937	1.0049	.8105	.8981	.9008
.885	1.0050	.7942	.8890	.8919
.833	1.0050	.7840	.8832	.8862
.781	1.0051	.7688	.8746	.8778
.729	1.0048	.7757	.8786	.8817
.677	1.0046	.7565	.8678	.8711
.625	1.0050	.7436	.8602	.8637
.573	1.0053	.7462	.8616	.8650
.521	1.0055	.7454	.8610	.8644
.469	1.0057	.7360	.8555	.8590
.417	1.0060	.7351	.8548	.8584
.366	1.0064	.7363	.8554	.8589
.313	1.0077	.7089	.8387	.8426
.260	1.0091	.6856	.8243	.8284
.208	1.0108	.6443	.7984	.8029
.156	1.0126	.5986	.7689	.7738
-.156	1.0120	.6208	.7832	.7879
-.208	1.0099	.6781	.8194	.8236
-.260	1.0079	.7218	.8463	.8500
-.313	1.0076	.7333	.8531	.8567
-.366	1.0073	.7370	.8554	.8589
-.417	1.0068	.7413	.8580	.8616
-.469	1.0063	.7533	.8652	.8686
-.521	1.0061	.7563	.8670	.8703
-.573	1.0059	.7783	.8796	.8827
-.625	1.0059	.7991	.8913	.8941
-.677	1.0059	.7839	.8828	.8859
-.729	1.0058	.8119	.8985	.9011
-.781	1.0057	.8124	.8988	.9015
-.833	1.0058	.8084	.8965	.8992
-.885	1.0059	.8401	.9139	.9163
-.937	1.0061	.8366	.9119	.9143
-.989	1.0064	.8576	.9232	.9253
-1.042	1.0060	.8732	.9317	.9336
-1.094	1.0056	.8741	.9323	.9342
-1.146	1.0056	.9026	.9474	.9489
-1.198	1.0055	.9052	.9488	.9503

(d) x/D = 9.00; y/D = 0.0; $\alpha = 5^{\circ}$;
p_∞ = 90 886.31 N/m^2 (1898.20 lb/ft^2);
q_∞ = 10 125.72 N/m^2 (211.48 lb/ft^2);
$p_{t,\infty}$ = 101 419.96 N/m^2 (2118.20 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0038	.8585	.9248	.9269
1.146	1.0043	.8504	.9202	.9224
1.094	1.0047	.8353	.9118	.9142
1.042	1.0050	.8340	.9110	.9134
.989	1.0054	.8173	.9016	.9042
.937	1.0053	.8000	.8921	.8949
.885	1.0053	.7792	.8804	.8835
.833	1.0054	.7757	.8783	.8815
.781	1.0056	.7764	.8787	.8818
.729	1.0053	.7568	.8676	.8709
.677	1.0051	.7612	.8703	.8735
.625	1.0054	.7630	.8711	.8744
.573	1.0057	.7378	.8565	.8601
.521	1.0058	.7594	.8689	.8722
.469	1.0059	.7470	.8618	.8652
.417	1.0063	.7355	.8549	.8585
.366	1.0066	.7431	.8592	.8627
.313	1.0076	.7046	.8362	.8401
.260	1.0085	.6987	.8323	.8363
.208	1.0108	.6753	.8174	.8216
.156	1.0132	.6183	.7812	.7859
-.156	1.0128	.6430	.7968	.8013
-.208	1.0101	.6914	.8273	.8314
-.260	1.0075	.7303	.8514	.8551
-.313	1.0072	.7475	.8615	.8649
-.366	1.0069	.7619	.8698	.8731
-.417	1.0066	.7615	.8698	.8731
-.469	1.0063	.7668	.8729	.8761
-.521	1.0059	.7894	.8859	.8888
-.573	1.0055	.7965	.8900	.8929
-.625	1.0054	.8094	.8972	.9000
-.677	1.0053	.8011	.8927	.8955
-.729	1.0052	.8245	.9057	.9082
-.781	1.0051	.8254	.9062	.9087
-.833	1.0053	.8228	.9047	.9072
-.885	1.0055	.8314	.9093	.9117
-.937	1.0061	.8421	.9149	.9172
-.989	1.0067	.8535	.9208	.9230
-1.042	1.0060	.8700	.9299	.9319
-1.094	1.0054	.8886	.9401	.9418
-1.146	1.0054	.8953	.9436	.9452
-1.198	1.0055	.8956	.9438	.9454

TABLE 8.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Concluded

(e) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 5^{\circ}$;

p_∞ = 90 929.40 N/m^2 (1899.10 lb/ft^2);
q_∞ = 10 135.77 N/m^2 (211.69 lb/ft^2);
$p_{t,\infty}$ = 101 472.63 N/m^2 (2119.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0039	.8671	.9294	.9313
1.146	1.0046	.8601	.9253	.9273
1.094	1.0053	.8517	.9204	.9226
1.042	1.0054	.8343	.9109	.9133
.989	1.0056	.8260	.9063	.9088
.937	1.0054	.8031	.8938	.8966
.885	1.0051	.7979	.8909	.8938
.833	1.0055	.8012	.8926	.8954
.781	1.0060	.7940	.8884	.8913
.729	1.0055	.7876	.8850	.8880
.677	1.0052	.7968	.8903	.8932
.625	1.0059	.7718	.8759	.8791
.573	1.0066	.7728	.8762	.8793
.521	1.0064	.7693	.8743	.8775
.469	1.0061	.7566	.8672	.8705
.417	1.0069	.7553	.8661	.8694
.366	1.0073	.7363	.8548	.8584
.313	1.0088	.7243	.8473	.8510
.260	1.0098	.7235	.8465	.8502
.208	1.0121	.6826	.8213	.8254
.156	1.0144	.6273	.7864	.7911
-.156	1.0129	.6466	.7990	.8035
-.208	1.0105	.6942	.8288	.8329
-.260	1.0082	.7473	.8609	.8644
-.313	1.0079	.7546	.8653	.8686
-.366	1.0075	.7597	.8684	.8717
-.417	1.0068	.7708	.8750	.8782
-.469	1.0062	.7806	.8808	.8838
-.521	1.0064	.7880	.8848	.8878
-.573	1.0066	.7940	.8881	.8910
-.625	1.0064	.8065	.8952	.8979
-.677	1.0062	.8098	.8971	.8999
-.729	1.0058	.8197	.9027	.9053
-.781	1.0055	.8316	.9095	.9119
-.833	1.0055	.8313	.9092	.9117
-.885	1.0056	.8345	.9110	.9134
-.937	1.0061	.8448	.9163	.9186
-.989	1.0066	.8453	.9164	.9187
-1.042	1.0062	.8697	.9297	.9316
-1.094	1.0058	.8688	.9294	.9314
-1.146	1.0056	.8841	.9376	.9394
-1.198	1.0054	.8902	.9410	.9427

(f) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 5^{\circ}$;

p_∞ = 90 848.00 N/m^2 (1897.40 lb/ft^2);
q_∞ = 10 180.78 N/m^2 (212.63 lb/ft^2);
$p_{t,\infty}$ = 101 443.90 N/m^2 (2118.70 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0048	.8664	.9286	.9306
1.146	1.0052	.8511	.9201	.9223
1.094	1.0056	.8448	.9165	.9188
1.042	1.0058	.8439	.9160	.9183
.989	1.0060	.8206	.9032	.9058
.937	1.0061	.8071	.8957	.8984
.885	1.0062	.8154	.9002	.9028
.833	1.0062	.8066	.8953	.8981
.781	1.0061	.8006	.8921	.8949
.729	1.0061	.7987	.8910	.8938
.677	1.0061	.7996	.8915	.8943
.625	1.0066	.7875	.8845	.8875
.573	1.0072	.7880	.8845	.8875
.521	1.0072	.7901	.8857	.8886
.469	1.0073	.7662	.8721	.8754
.417	1.0079	.7701	.8741	.8773
.366	1.0084	.7465	.8604	.8639
.313	1.0092	.7382	.8553	.8589
.260	1.0099	.7221	.8456	.8494
.208	1.0126	.6915	.8264	.8305
.156	1.0153	.6231	.7834	.7881
-.156	1.0133	.6548	.8038	.8083
-.208	1.0115	.7062	.8356	.8395
-.260	1.0096	.7299	.8503	.8540
-.313	1.0091	.7586	.8671	.8704
-.366	1.0086	.7690	.8732	.8764
-.417	1.0077	.7783	.8788	.8820
-.469	1.0069	.7841	.8825	.8855
-.521	1.0069	.7869	.8840	.8870
-.573	1.0070	.7841	.8824	.8855
-.625	1.0065	.8029	.8931	.8960
-.677	1.0061	.8154	.9003	.9029
-.729	1.0059	.8134	.8993	.9020
-.781	1.0057	.8269	.9068	.9093
-.833	1.0058	.8393	.9135	.9159
-.885	1.0059	.8531	.9209	.9231
-.937	1.0065	.8423	.9148	.9171
-.989	1.0072	.8412	.9139	.9163
-1.042	1.0068	.8571	.9227	.9248
-1.094	1.0064	.8598	.9243	.9264
-1.146	1.0062	.8732	.9316	.9335
-1.198	1.0060	.8796	.9351	.9369

TABLE 9.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT)

(a) x/D = 6.00; y/D = 0.0; α = 5°;

p_∞ = 79 576.99 N/m² (1662.00 lb/ft²);
q_∞ = 20 049.86 N/m² (418.75 lb/ft²);
$p_{t,\infty}$ = 101 496.57 N/m² (2119.80 lb/ft²)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0109	.8865	.9365	.9403
1.146	1.0123	.8636	.9236	.9282
1.094	1.0137	.8373	.9088	.9142
1.042	1.0130	.8189	.8991	.9050
.989	1.0123	.7869	.8817	.8884
.937	1.0114	.7660	.8702	.8774
.885	1.0106	.7542	.8639	.8714
.833	1.0103	.7432	.8577	.8654
.781	1.0100	.6940	.8289	.8378
.729	1.0087	.6964	.8309	.8397
.677	1.0075	.6810	.8222	.8313
.625	1.0072	.6561	.8071	.8167
.573	1.0070	.6203	.7848	.7951
.521	1.0080	.6238	.7867	.7970
.469	1.0090	.6318	.7913	.8014
.417	1.0093	.6058	.7748	.7854
.366	1.0095	.5981	.7697	.7805
.313	1.0107	.5705	.7513	.7625
.260	1.0120	.5757	.7543	.7654
.208	1.0171	.5522	.7368	.7484
.156	1.0223	.4911	.6931	.7055
-.155	1.0259	.5253	.7156	.7276
-.208	1.0208	.5572	.7388	.7504
-.260	1.0158	.5852	.7590	.7701
-.313	1.0147	.6061	.7729	.7835
-.366	1.0136	.6127	.7775	.7880
-.417	1.0135	.6314	.7893	.7995
-.469	1.0134	.6500	.8009	.8107
-.521	1.0130	.6890	.8247	.8337
-.573	1.0126	.7057	.8348	.8434
-.625	1.0139	.7383	.8534	.8613
-.677	1.0151	.7492	.8591	.8667
-.729	1.0158	.7690	.8701	.8773
-.781	1.0164	.7977	.8859	.8924
-.833	1.0174	.8012	.8874	.8938
-.885	1.0184	.8267	.9010	.9067
-.937	1.0199	.8501	.9130	.9181
-.989	1.0213	.8649	.9203	.9250
-1.042	1.0200	.8745	.9259	.9304
-1.094	1.0187	.8945	.9370	.9409
-1.146	1.0182	.9038	.9421	.9457
-1.198	1.0173	.9144	.9478	.9511

(b) x/D = 7.00; y/D = 0.0; α = 5°;

p_∞ = 79 648.81 N/m² (1663.50 lb/ft²);
q_∞ = 19 985.70 N/m² (417.41 lb/ft²);
$p_{t,\infty}$ = 101 486.99 N/m² (2119.60 lb/ft²)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0084	.8725	.9302	.9344
1.146	1.0105	.8734	.9297	.9339
1.094	1.0125	.8368	.9091	.9144
1.042	1.0120	.8247	.9027	.9084
.989	1.0115	.8052	.8922	.8984
.937	1.0112	.7787	.8775	.8843
.885	1.0109	.7607	.8674	.8747
.833	1.0116	.7483	.8600	.8670
.781	1.0123	.7285	.8483	.8563
.729	1.0102	.7241	.8466	.8548
.677	1.0081	.7238	.8474	.8555
.625	1.0091	.6925	.8284	.8372
.573	1.0102	.6769	.8185	.8277
.521	1.0105	.6660	.8119	.8213
.469	1.0108	.6535	.8041	.8137
.417	1.0114	.6700	.8139	.8232
.366	1.0120	.6603	.8077	.8173
.313	1.0141	.6384	.7934	.8034
.260	1.0162	.6092	.7743	.7849
.208	1.0205	.5874	.7587	.7697
.156	1.0248	.5575	.7376	.7491
-.156	1.0270	.5782	.7504	.7616
-.208	1.0227	.6121	.7736	.7843
-.260	1.0184	.6413	.7936	.8036
-.313	1.0162	.6682	.8109	.8204
-.366	1.0139	.6649	.8098	.8193
-.417	1.0134	.7139	.8393	.8477
-.469	1.0130	.7088	.8365	.8450
-.521	1.0130	.7337	.8511	.8590
-.573	1.0131	.7389	.8540	.8618
-.625	1.0134	.7553	.8636	.8710
-.677	1.0138	.7559	.8635	.8710
-.729	1.0140	.7809	.8775	.8844
-.781	1.0142	.8030	.8898	.8961
-.833	1.0151	.8090	.8927	.8989
-.885	1.0159	.8242	.9007	.9065
-.937	1.0170	.8446	.9113	.9165
-.989	1.0181	.8476	.9124	.9176
-1.042	1.0172	.8709	.9253	.9298
-1.094	1.0163	.8962	.9390	.9428
-1.146	1.0158	.8953	.9388	.9426
-1.198	1.0153	.9095	.9465	.9498

TABLE 9.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Continued

(c) x/D = 8.39; y/D = 0.0; $\alpha = 5^o$;

p_∞ = 79 548.26 N/m^2 (1661.40 lb/ft^2);
q_∞ = 20 113.06 N/m^2 (420.07 lb/ft^2);
$p_{t,\infty}$ = 101 544.45 N/m^2 (2120.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0067	.8749	.9323	.9364
1.146	1.0089	.8608	.9237	.9283
1.094	1.0111	.8495	.9167	.9216
1.042	1.0115	.8274	.9044	.9100
.989	1.0120	.7934	.8854	.8919
.937	1.0117	.7840	.8803	.8870
.885	1.0115	.7706	.8728	.8799
.833	1.0111	.7521	.8625	.8700
.781	1.0107	.7588	.8665	.8738
.729	1.0107	.7504	.8616	.8692
.677	1.0108	.7485	.8606	.8682
.625	1.0117	.7365	.8532	.8612
.573	1.0126	.7241	.8457	.8539
.521	1.0119	.7301	.8494	.8575
.469	1.0112	.7201	.8439	.8522
.417	1.0120	.7084	.8367	.8453
.365	1.0128	.6944	.8281	.8370
.313	1.0159	.6865	.8220	.8312
.260	1.0190	.6692	.8103	.8199
.208	1.0234	.6301	.7847	.7950
.156	1.0278	.5812	.7520	.7632
-.156	1.0270	.6085	.7698	.7805
-.208	1.0228	.6586	.8024	.8122
-.260	1.0187	.6774	.8155	.8248
-.313	1.0172	.6980	.8284	.8373
-.365	1.0157	.7159	.8395	.8480
-.417	1.0156	.7280	.8466	.8548
-.469	1.0155	.7330	.8496	.8577
-.521	1.0140	.7546	.8626	.8702
-.573	1.0126	.7754	.8751	.8821
-.625	1.0122	.7963	.8870	.8934
-.677	1.0117	.7968	.8875	.8939
-.729	1.0122	.7954	.8865	.8929
-.781	1.0128	.8141	.8966	.9026
-.833	1.0127	.8312	.9060	.9115
-.885	1.0127	.8401	.9108	.9161
-.937	1.0147	.8468	.9135	.9186
-.989	1.0167	.8680	.9240	.9286
-1.042	1.0158	.8648	.9227	.9274
-1.094	1.0148	.8811	.9318	.9360
-1.146	1.0142	.8928	.9382	.9420
-1.198	1.0135	.9141	.9496	.9528

(d) x/D = 9.00; y/D = 0.0; $\alpha = 5^o$;

p_∞ = 79 720.63 N/m^2 (1665.00 lb/ft^2);
q_∞ = 19 921.06 N/m^2 (416.06 lb/ft^2);
$p_{t,\infty}$ = 101 482.21 N/m^2 (2119.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0089	.8675	.9273	.9317
1.146	1.0108	.8686	.9270	.9314
1.094	1.0128	.8322	.9064	.9119
1.042	1.0122	.8321	.9067	.9121
.989	1.0115	.8164	.8984	.9042
.937	1.0112	.8120	.8961	.9020
.885	1.0108	.7886	.8833	.8898
.833	1.0108	.7926	.8855	.8919
.781	1.0103	.7879	.8829	.8895
.729	1.0107	.7651	.8700	.8772
.677	1.0105	.7498	.8614	.8689
.625	1.0115	.7430	.8570	.8647
.573	1.0125	.7226	.8448	.8530
.521	1.0134	.7276	.8473	.8554
.469	1.0143	.7265	.8463	.8545
.417	1.0151	.7101	.8364	.8449
.366	1.0158	.6980	.8290	.8377
.313	1.0183	.6901	.8233	.8322
.260	1.0207	.6801	.8163	.8255
.208	1.0252	.6445	.7929	.8029
.156	1.0297	.5979	.7620	.7729
-.156	1.0270	.6349	.7862	.7964
-.208	1.0218	.6825	.8173	.8265
-.260	1.0165	.7040	.8322	.8408
-.313	1.0163	.7161	.8394	.8478
-.366	1.0161	.7269	.8458	.8539
-.417	1.0144	.7271	.8466	.8547
-.469	1.0127	.7552	.8636	.8710
-.521	1.0125	.7528	.8623	.8697
-.573	1.0122	.7691	.8717	.8787
-.625	1.0128	.7792	.8771	.8839
-.677	1.0134	.7805	.8776	.8844
-.729	1.0133	.7907	.8833	.8899
-.781	1.0133	.8118	.8951	.9011
-.833	1.0134	.8208	.9000	.9057
-.885	1.0135	.8287	.9043	.9098
-.937	1.0150	.8340	.9065	.9119
-.989	1.0165	.8406	.9093	.9146
-1.042	1.0142	.8582	.9199	.9247
-1.094	1.0118	.8850	.9352	.9392
-1.146	1.0120	.8929	.9393	.9430
-1.198	1.0122	.8981	.9420	.9455

TABLE 9.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Concluded

(e) x/D = 10.00; y/D = 0.0; $\alpha = 5^o$;

p_∞ = 79 615.29 N/m^2 (1662.80 lb/ft^2);
q_∞ = 20 024.00 N/m^2 (418.21 lb/ft^2);
$p_{t,\infty}$ = 101 501.36 N/m^2 (2119.90 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0102	.8661	.9260	.9304
1.146	1.0122	.8611	.9223	.9270
1.094	1.0142	.8353	.9075	.9130
1.042	1.0131	.8359	.9084	.9137
.989	1.0121	.8240	.9023	.9080
.937	1.0123	.8179	.8988	.9047
.885	1.0126	.7872	.8817	.8884
.833	1.0138	.7940	.8850	.8915
.781	1.0150	.7768	.8748	.8818
.729	1.0141	.7688	.8707	.8779
.677	1.0131	.7668	.8700	.8772
.625	1.0136	.7563	.8638	.8713
.573	1.0142	.7465	.8580	.8657
.521	1.0148	.7497	.8595	.8672
.469	1.0154	.7365	.8517	.8596
.417	1.0164	.7320	.8487	.8567
.366	1.0174	.7386	.8520	.8600
.313	1.0201	.7113	.8351	.8437
.260	1.0227	.6964	.8252	.8342
.208	1.0284	.6415	.7898	.7999
.156	1.0341	.6041	.7643	.7752
-.156	1.0295	.6394	.7881	.7983
-.208	1.0245	.6849	.8176	.8269
-.260	1.0195	.7135	.8366	.8451
-.313	1.0183	.7400	.8525	.8604
-.366	1.0171	.7444	.8555	.8633
-.417	1.0157	.7499	.8592	.8669
-.469	1.0143	.7647	.8683	.8755
-.521	1.0138	.7746	.8741	.8811
-.573	1.0132	.7785	.8765	.8834
-.625	1.0139	.7872	.8811	.8878
-.677	1.0145	.7962	.8859	.8924
-.729	1.0150	.7957	.8854	.8919
-.781	1.0154	.8014	.8884	.8947
-.833	1.0152	.8035	.8897	.8960
-.885	1.0149	.8182	.8979	.9038
-.937	1.0163	.8295	.9035	.9091
-.989	1.0176	.8376	.9072	.9127
-1.042	1.0158	.8542	.9171	.9220
-1.094	1.0139	.8650	.9236	.9282
-1.146	1.0132	.8787	.9313	.9354
-1.198	1.0124	.8949	.9402	.9439

(f) x/D = 11.00; y/D = 0.0; $\alpha = 5^o$;

p_∞ = 79 634.45 N/m^2 (1663.20 lb/ft^2);
q_∞ = 19 990.97 N/m^2 (417.52 lb/ft^2);
$p_{t,\infty}$ = 101 482.21 N/m^2 (2119.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0120	.8703	.9273	.9317
1.146	1.0125	.8577	.9204	.9252
1.094	1.0130	.8475	.9147	.9197
1.042	1.0137	.8376	.9090	.9143
.989	1.0144	.8118	.8946	.9006
.937	1.0135	.8145	.8964	.9024
.885	1.0126	.8076	.8930	.8991
.833	1.0134	.8019	.8895	.8958
.781	1.0142	.7882	.8816	.8882
.729	1.0138	.7864	.8807	.8874
.677	1.0133	.7796	.8771	.8839
.625	1.0141	.7665	.8694	.8766
.573	1.0149	.7681	.8700	.8771
.521	1.0162	.7612	.8655	.8729
.469	1.0176	.7550	.8614	.8689
.417	1.0174	.7202	.8414	.8497
.366	1.0172	.7487	.8579	.8656
.313	1.0199	.7378	.8505	.8585
.260	1.0227	.7231	.8409	.8492
.208	1.0283	.6681	.8061	.8157
.156	1.0339	.6224	.7759	.7864
-.156	1.0315	.6279	.7802	.7906
-.208	1.0259	.6941	.8226	.8316
-.260	1.0203	.7268	.8440	.8522
-.313	1.0198	.7414	.8526	.8605
-.366	1.0192	.7522	.8591	.8667
-.417	1.0174	.7607	.8647	.8721
-.469	1.0155	.7681	.8697	.8769
-.521	1.0147	.7828	.8783	.8851
-.573	1.0139	.7968	.8865	.8929
-.625	1.0146	.7960	.8858	.8922
-.677	1.0154	.7952	.8850	.8915
-.729	1.0146	.7921	.8835	.8901
-.781	1.0139	.8118	.8948	.9008
-.833	1.0140	.8187	.8985	.9044
-.885	1.0141	.8227	.9007	.9064
-.937	1.0152	.8347	.9067	.9122
-.989	1.0164	.8262	.9016	.9073
-1.042	1.0155	.8573	.9188	.9236
-1.094	1.0145	.8640	.9228	.9274
-1.146	1.0129	.8756	.9297	.9340
-1.198	1.0113	.8804	.9330	.9371

TABLE 10.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT)

(a) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 5^\circ$;

p_∞ = 66 567.92 N/m^2 (1390.30 lb/ft^2);
q_∞ = 29 842.81 N/m^2 (623.28 lb/ft^2);
$p_{t,\infty}$ = 101 501.36 N/m^2 (2119.90 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0410	.8677	.9130	.9218
1.146	1.0428	.8551	.9055	.9149
1.094	1.0446	.8366	.8949	.9052
1.042	1.0421	.8063	.8796	.8512
.989	1.0395	.7880	.8706	.8829
.937	1.0372	.7524	.8517	.8653
.885	1.0348	.7255	.8373	.8519
.833	1.0349	.6794	.8102	.8265
.781	1.0350	.6432	.7883	.8058
.729	1.0313	.6095	.7688	.7873
.677	1.0275	.5955	.7613	.7802
.625	1.0272	.5662	.7425	.7621
.573	1.0269	.5393	.7247	.7451
.521	1.0266	.5155	.7086	.7295
.469	1.0262	.5018	.6993	.7205
.417	1.0267	.4696	.6763	.6982
.366	1.0272	.4647	.6726	.6946
.313	1.0290	.4513	.6622	.6844
.260	1.0308	.4545	.6640	.6661
.208	1.0358	.4134	.6318	.6545
.156	1.0409	.3925	.6141	.6370
-.156	1.0569	.4111	.6236	.6465
-.208	1.0479	.4417	.6492	.6716
-.260	1.0388	.4790	.6790	.7008
-.313	1.0367	.4905	.6878	.7094
-.366	1.0346	.5223	.7105	.7314
-.417	1.0355	.5441	.7249	.7452
-.469	1.0364	.5569	.7331	.7531
-.521	1.0350	.6035	.7636	.7823
-.573	1.0337	.6236	.7767	.7948
-.625	1.0374	.6575	.7961	.8132
-.677	1.0411	.6980	.8188	.8346
-.729	1.0424	.7301	.8369	.8515
-.781	1.0437	.7560	.8511	.8647
-.833	1.0472	.7939	.8707	.8829
-.885	1.0507	.8071	.8765	.8882
-.937	1.0555	.8258	.8845	.8957
-.989	1.0603	.8384	.8892	.9000
-1.042	1.0583	.8476	.8949	.9052
-1.094	1.0562	.8706	.9079	.9171
-1.146	1.0555	.8804	.9133	.9220
-1.198	1.0547	.8927	.9200	.9281

(b) $x/D = 7.00$; $y/D = 0.0$; $\alpha = 5^\circ$;

p_∞ = 66 668.47 N/m^2 (1392.40 lb/ft^2);
q_∞ = 29 795.41 N/m^2 (622.29 lb/ft^2);
$p_{t,\infty}$ = 101 530.09 N/m^2 (2120.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0316	.8716	.9192	.9274
1.146	1.0331	.8436	.9036	.9132
1.094	1.0346	.8300	.8957	.9059
1.042	1.0334	.8097	.8851	.8962
.989	1.0322	.7723	.8649	.8775
.937	1.0311	.7644	.8610	.8739
.885	1.0300	.7173	.8345	.8492
.833	1.0284	.7146	.8336	.8484
.781	1.0258	.6882	.8187	.8344
.729	1.0255	.6827	.8159	.8318
.677	1.0243	.6675	.8072	.8236
.625	1.0236	.6409	.7913	.8086
.573	1.0230	.6127	.7739	.7921
.521	1.0242	.5960	.7629	.7816
.469	1.0254	.5914	.7595	.7783
.417	1.0259	.5759	.7493	.7686
.365	1.0265	.5685	.7442	.7638
.313	1.0293	.5497	.7307	.7508
.260	1.0322	.5454	.7269	.7471
.208	1.0405	.5146	.7032	.7243
.156	1.0488	.4690	.6687	.6907
-.156	1.0544	.4945	.6848	.7064
-.208	1.0456	.5326	.7137	.7344
-.260	1.0368	.5781	.7467	.7662
-.313	1.0342	.5866	.7531	.7723
-.366	1.0316	.6114	.7699	.7883
-.417	1.0324	.6344	.7839	.8016
-.469	1.0333	.6336	.7831	.8008
-.521	1.0313	.6677	.8046	.8212
-.573	1.0293	.6913	.8195	.8352
-.625	1.0321	.6970	.8218	.8373
-.677	1.0349	.7233	.8360	.8506
-.729	1.0359	.7444	.8477	.8616
-.781	1.0368	.7693	.8614	.8742
-.833	1.0389	.7926	.8734	.8854
-.885	1.0410	.8205	.8878	.8987
-.937	1.0452	.8245	.8881	.8990
-.989	1.0495	.8392	.8942	.9046
-1.042	1.0471	.8527	.9024	.9121
-1.094	1.0447	.8778	.9166	.9250
-1.146	1.0430	.8911	.9243	.9320
-1.198	1.0413	.9004	.9299	.9371

TABLE 10.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Continued

(c) x/D = 8.39; y/D = 0.0; $\alpha = 5^\circ$;
p_∞ = 66 692.41 N/m^2 (1392.90 lb/ft^2);
q_∞ = 29 812.64 N/m^2 (622.65 lb/ft^2);
$p_{t,\infty}$ = 101 573.18 N/m^2 (2121.40 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0277	.8612	.9155	.9240
1.146	1.0305	.8463	.9063	.9156
1.094	1.0333	.8305	.8965	.9067
1.042	1.0338	.8139	.8873	.8982
.989	1.0344	.7914	.8747	.8866
.937	1.0329	.7662	.8613	.8741
.885	1.0314	.7398	.8469	.8608
.833	1.0314	.7433	.8490	.8627
.781	1.0313	.7145	.8323	.8472
.729	1.0297	.7035	.8266	.8418
.677	1.0280	.6919	.8204	.8361
.625	1.0288	.6750	.8100	.8263
.573	1.0295	.6560	.7983	.8152
.521	1.0295	.6521	.7959	.8129
.469	1.0295	.6416	.7895	.8069
.417	1.0319	.6495	.7934	.8106
.365	1.0343	.6393	.7862	.8038
.313	1.0367	.6099	.7670	.7856
.260	1.0392	.6034	.7620	.7808
.208	1.0483	.5719	.7386	.7584
.156	1.0573	.5316	.7090	.7299
-.156	1.0584	.5552	.7243	.7446
-.208	1.0503	.6053	.7592	.7781
-.260	1.0421	.6397	.7835	.8012
-.313	1.0392	.6521	.7921	.8094
-.366	1.0362	.6701	.8041	.8207
-.417	1.0352	.6791	.8099	.8262
-.469	1.0341	.6797	.8107	.8269
-.521	1.0332	.6926	.8187	.8345
-.573	1.0322	.7137	.8315	.8464
-.625	1.0326	.7333	.8427	.8569
-.677	1.0329	.7432	.8483	.8621
-.729	1.0344	.7565	.8551	.8685
-.781	1.0360	.7802	.8678	.8802
-.833	1.0367	.7891	.8724	.8845
-.885	1.0373	.8074	.8822	.8935
-.937	1.0408	.8129	.8838	.8949
-.989	1.0443	.8170	.8845	.8956
-1.042	1.0424	.8349	.8949	.9052
-1.094	1.0405	.8588	.9085	.9176
-1.146	1.0395	.8815	.9208	.9289
-1.198	1.0386	.8921	.9268	.9343

(d) x/D = 9.00; y/D = 0.0; $\alpha = 5^\circ$;
p_∞ = 66 682.84 N/m^2 (1392.70 lb/ft^2);
q_∞ = 29 754.23 N/m^2 (621.43 lb/ft^2);
$p_{t,\infty}$ = 101 486.99 N/m^2 (2119.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0316	.8562	.9110	.9199
1.146	1.0339	.8490	.9062	.9155
1.094	1.0363	.8350	.8976	.9077
1.042	1.0366	.8081	.8829	.8942
.989	1.0369	.7892	.8724	.8844
.937	1.0354	.7787	.8672	.8796
.885	1.0340	.7508	.8521	.8656
.833	1.0347	.7379	.8445	.8585
.781	1.0354	.7275	.8382	.8527
.729	1.0331	.7148	.8318	.8467
.677	1.0309	.7184	.8348	.8495
.625	1.0321	.7015	.8244	.8398
.573	1.0333	.6861	.8148	.8308
.521	1.0339	.6731	.8069	.8233
.469	1.0345	.6599	.7987	.8155
.417	1.0363	.6575	.7966	.8136
.366	1.0380	.6518	.7924	.8096
.313	1.0411	.6282	.7768	.7948
.260	1.0441	.6180	.7693	.7877
.208	1.0533	.5935	.7504	.7697
.156	1.0637	.5328	.7077	.7286
-.156	1.0619	.5642	.7289	.7490
-.208	1.0534	.6123	.7624	.7811
-.260	1.0449	.6316	.7775	.7955
-.313	1.0421	.6540	.7922	.8094
-.366	1.0394	.6600	.7969	.8138
-.417	1.0373	.6779	.8084	.8247
-.469	1.0352	.6860	.8140	.8300
-.521	1.0349	.7009	.8229	.8384
-.573	1.0346	.7157	.8317	.8466
-.625	1.0345	.7243	.8367	.8513
-.677	1.0345	.7429	.8474	.8613
-.729	1.0357	.7482	.8500	.8636
-.781	1.0369	.7576	.8548	.8681
-.833	1.0373	.7854	.8701	.8823
-.885	1.0378	.7985	.8772	.8888
-.937	1.0416	.8146	.8844	.8955
-.989	1.0454	.8171	.8841	.8952
-1.042	1.0403	.8332	.8950	.9052
-1.094	1.0352	.8479	.9050	.9144
-1.146	1.0363	.8682	.9153	.9238
-1.198	1.0374	.8740	.9179	.9262

TABLE 10.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Concluded

(e) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 5^\circ$;
$p_\infty = 66\ 634.96\ N/m^2\ (1391.70\ lb/ft^2)$;
$q_\infty = 29\ 838.98\ N/m^2\ (623.20\ lb/ft^2)$;
$p_{t,\infty} = 101\ 554.03\ N/m^2\ (2121.00\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0324	.8653	.9155	.9240
1.146	1.0346	.8331	.8974	.9075
1.094	1.0367	.8368	.8984	.9084
1.042	1.0369	.8175	.8879	.8988
.989	1.0371	.7981	.8773	.8890
.937	1.0371	.7849	.8699	.8822
.885	1.0372	.7537	.8525	.8660
.833	1.0375	.7471	.8486	.8624
.781	1.0378	.7334	.8406	.8550
.729	1.0356	.7274	.8381	.8526
.677	1.0334	.7131	.8307	.8457
.625	1.0340	.7221	.8357	.8503
.573	1.0347	.7059	.8260	.8413
.521	1.0354	.6923	.8177	.8335
.469	1.0360	.6915	.8170	.8328
.417	1.0377	.6716	.8045	.8211
.366	1.0393	.6671	.8012	.8180
.313	1.0436	.6591	.7947	.8118
.260	1.0480	.6468	.7856	.8032
.208	1.0567	.6115	.7607	.7795
.156	1.0654	.5607	.7255	.7458
-.156	1.0643	.5767	.7361	.7560
-.208	1.0552	.6340	.7751	.7933
-.260	1.0460	.6624	.7958	.8128
-.313	1.0430	.6878	.8121	.8282
-.366	1.0399	.6952	.8176	.8335
-.417	1.0379	.6977	.8199	.8356
-.469	1.0359	.7108	.8283	.8435
-.521	1.0360	.7260	.8371	.8517
-.573	1.0360	.7323	.8407	.8551
-.625	1.0365	.7418	.8460	.8600
-.677	1.0370	.7479	.8492	.8630
-.729	1.0374	.7602	.8560	.8693
-.781	1.0377	.7632	.8576	.8708
-.833	1.0375	.7885	.8718	.8839
-.885	1.0373	.7949	.8754	.8872
-.937	1.0409	.8029	.8783	.8899
-.989	1.0445	.8158	.8837	.8949
-1.042	1.0409	.8308	.8934	.9038
-1.094	1.0373	.8474	.9038	.9133
-1.146	1.0368	.8522	.9066	.9159
-1.198	1.0363	.8696	.9161	.9246

(f) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 5^\circ$;
$p_\infty = 66\ 682.84\ N/m^2\ (1392.70\ lb/ft^2)$;
$q_\infty = 29\ 795.88\ N/m^2\ (622.30\ lb/ft^2)$;
$p_{t,\infty} = 101\ 544.45\ N/m^2\ (2120.80\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0336	.8656	.9151	.9237
1.146	1.0364	.8559	.9088	.9178
1.094	1.0392	.8349	.8964	.9065
1.042	1.0392	.8231	.8900	.9007
.989	1.0392	.8016	.8783	.8899
.937	1.0389	.7780	.8654	.8779
.885	1.0386	.7828	.8681	.8805
.833	1.0390	.7622	.8565	.8698
.781	1.0393	.7594	.8548	.8681
.729	1.0386	.7423	.8454	.8594
.677	1.0378	.7290	.8381	.8526
.625	1.0389	.7285	.8374	.8519
.573	1.0400	.7153	.8293	.8444
.521	1.0400	.7219	.8331	.8480
.469	1.0400	.7124	.8276	.8428
.417	1.0413	.7008	.8204	.8360
.365	1.0426	.6887	.8128	.8289
.313	1.0477	.6812	.8063	.8228
.260	1.0528	.6511	.7864	.8040
.208	1.0618	.6140	.7604	.7793
.156	1.0708	.5772	.7342	.7541
-.156	1.0662	.5832	.7396	.7593
-.208	1.0568	.6508	.7847	.8024
-.260	1.0474	.6693	.7994	.8163
-.313	1.0451	.6928	.8142	.8302
-.366	1.0429	.7053	.8224	.8379
-.417	1.0402	.7250	.8348	.8495
-.469	1.0376	.7360	.8422	.8564
-.521	1.0378	.7372	.8429	.8570
-.573	1.0380	.7433	.8462	.8601
-.625	1.0384	.7490	.8493	.8630
-.677	1.0387	.7508	.8502	.8638
-.729	1.0391	.7639	.8574	.8706
-.781	1.0394	.7561	.8529	.8664
-.833	1.0397	.7850	.8689	.8812
-.885	1.0400	.7865	.8696	.8819
-.937	1.0426	.7989	.8754	.8872
-.989	1.0451	.7946	.8719	.8840
-1.042	1.0412	.8191	.8870	.8979
-1.094	1.0373	.8377	.8987	.9086
-1.146	1.0353	.8476	.9049	.9143
-1.198	1.0332	.8659	.9154	.9240

TABLE 11.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT)

(a) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 5^0$;
$p_\infty = 53\ 688.13$ N/m^2 (1121.30 lb/ft^2);
$q_\infty = 37\ 503.65$ N/m^2 (783.28 lb/ft^2);
$p_{t,\infty} = 101\ 506.15$ N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1282	.8602	.8732	.8510
1.146	1.1282	.8429	.8644	.8831
1.094	1.1282	.8292	.8573	.8768
1.042	1.1237	.8018	.8447	.8656
.989	1.1191	.7651	.8269	.8495
.937	1.1127	.7311	.8106	.8348
.885	1.1063	.6849	.7868	.8130
.833	1.1036	.6373	.7599	.7882
.781	1.1009	.6119	.7455	.7747
.729	1.0935	.5833	.7304	.7605
.677	1.0861	.5389	.7044	.7360
.625	1.0844	.5095	.6855	.7179
.573	1.0827	.4702	.6590	.6924
.521	1.0815	.4408	.6384	.6724
.469	1.0803	.4268	.6285	.6628
.417	1.0808	.3975	.6064	.6411
.366	1.0814	.3924	.6024	.6371
.313	1.0835	.3765	.5894	.6243
.260	1.0856	.3679	.5822	.6171
.208	1.0940	.3392	.5568	.5918
.156	1.1024	.3087	.5292	.5640
−.156	1.1404	.3719	.5710	.6060
−.208	1.1319	.4101	.6019	.6366
−.260	1.1235	.4551	.6365	.6705
−.313	1.1222	.4835	.6564	.6899
−.366	1.1210	.5346	.6906	.7228
−.417	1.1262	.5682	.7103	.7415
−.469	1.1314	.6137	.7365	.7662
−.521	1.1357	.6642	.7647	.7926
−.573	1.1401	.7097	.7890	.8150
−.625	1.1471	.7423	.8044	.8291
−.677	1.1541	.7727	.8183	.8417
−.729	1.1606	.8043	.8324	.8546
−.781	1.1672	.8178	.8370	.8587
−.833	1.1706	.8341	.8441	.8651
−.885	1.1740	.8412	.8464	.8671
−.937	1.1798	.8449	.8463	.8670
−.989	1.1855	.8440	.8437	.8647
−1.042	1.1808	.8497	.8483	.8688
−1.094	1.1762	.8561	.8532	.8732
−1.146	1.1710	.8610	.8575	.8770
−1.198	1.1658	.8651	.8615	.8806

(b) $x/D = 7.00$; $y/D = 0.0$; $\alpha = 5^0$;
$p_\infty = 53\ 683.35$ N/m^2 (1121.20 lb/ft^2);
$q_\infty = 37\ 515.14$ N/m^2 (783.52 lb/ft^2);
$p_{t,\infty} = 101\ 520.51$ N/m^2 (2120.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1169	.8555	.8752	.8928
1.146	1.1184	.8446	.8690	.8873
1.094	1.1199	.8210	.8562	.8759
1.042	1.1161	.7900	.8413	.8625
.989	1.1124	.7631	.8282	.8508
.937	1.1090	.7435	.8188	.8422
.885	1.1057	.7085	.8005	.8255
.833	1.1029	.6671	.7777	.8047
.781	1.1001	.6350	.7598	.7880
.729	1.0958	.6125	.7476	.7767
.677	1.0915	.5848	.7319	.7620
.625	1.0911	.5664	.7205	.7512
.573	1.0906	.5437	.7060	.7375
.521	1.0907	.5243	.6933	.7254
.469	1.0908	.5140	.6864	.7188
.417	1.0908	.4932	.6724	.7053
.366	1.0908	.4848	.6667	.6998
.313	1.0936	.4739	.6582	.6917
.260	1.0964	.4573	.6458	.6797
.208	1.1069	.4422	.6321	.6662
.156	1.1174	.3899	.5907	.6255
−.156	1.1512	.4484	.6241	.6585
−.208	1.1407	.4931	.6575	.6909
−.260	1.1301	.5300	.6848	.7172
−.313	1.1282	.5547	.7012	.7329
−.366	1.1264	.5899	.7237	.7542
−.417	1.1286	.6258	.7446	.7739
−.469	1.1308	.6584	.7630	.7910
−.521	1.1350	.6774	.7726	.7999
−.573	1.1392	.7117	.7904	.8163
−.625	1.1442	.7470	.8080	.8324
−.677	1.1491	.7651	.8160	.8397
−.729	1.1544	.7911	.8279	.8504
−.781	1.1596	.8126	.8371	.8588
−.833	1.1630	.8326	.8461	.8669
−.885	1.1663	.8349	.8461	.8668
−.937	1.1714	.8433	.8485	.8690
−.989	1.1765	.8441	.8470	.8677
−1.042	1.1717	.8543	.8539	.8738
−1.094	1.1670	.8651	.8610	.8801
−1.146	1.1609	.8690	.8652	.8839
−1.198	1.1547	.8748	.8704	.8885

TABLE 11.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT) - Continued

(c) $x/D = 8.39$; $y/D = 0.0$; $\alpha = 5^o$;

$p_\infty = 53\ 779.11\ N/m^2$ ($1123.20\ lb/ft^2$);
$q_\infty = 37\ 431.83\ N/m^2$ ($781.78\ lb/ft^2$);
$p_{t,\infty} = 101\ 463.05\ N/m^2$ ($2119.10\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1053	.8545	.8792	.8963
1.146	1.1077	.8444	.8731	.8508
1.094	1.1102	.8263	.8627	.8816
1.042	1.1099	.7974	.8476	.8681
.989	1.1096	.7731	.8347	.8565
.937	1.1060	.7494	.8232	.8461
.885	1.1025	.7173	.8066	.8310
.833	1.1016	.6868	.7896	.8155
.781	1.1007	.6751	.7831	.8095
.729	1.0956	.6638	.7784	.8051
.677	1.0905	.6432	.7680	.7955
.625	1.0902	.6268	.7583	.7865
.573	1.0899	.6048	.7449	.7740
.521	1.0900	.5899	.7356	.7653
.469	1.0902	.5787	.7286	.7587
.417	1.0916	.5846	.7318	.7617
.366	1.0930	.5591	.7152	.7461
.313	1.0991	.5398	.7008	.7324
.260	1.1052	.5225	.6876	.7198
.208	1.1182	.4884	.6609	.6941
.156	1.1311	.4451	.6273	.6615
-.156	1.1534	.4953	.6553	.6887
-.208	1.1408	.5448	.6910	.7231
-.260	1.1283	.5791	.7164	.7472
-.313	1.1259	.6093	.7356	.7653
-.366	1.1233	.6339	.7512	.7799
-.417	1.1250	.6427	.7558	.7842
-.469	1.1267	.6715	.7720	.7993
-.521	1.1279	.7020	.7889	.8149
-.573	1.1290	.7166	.7967	.8220
-.625	1.1336	.7364	.8060	.8305
-.677	1.1382	.7608	.8176	.8410
-.729	1.1424	.7792	.8259	.8486
-.781	1.1466	.7952	.8328	.8548
-.833	1.1482	.8066	.8382	.8596
-.885	1.1498	.8241	.8466	.8672
-.937	1.1548	.8365	.8511	.8713
-.989	1.1599	.8446	.8533	.8732
-1.042	1.1562	.8570	.8609	.8800
-1.094	1.1525	.8655	.8666	.8850
-1.146	1.1461	.8747	.8736	.8913
-1.198	1.1397	.8854	.8814	.8982

(d) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 5^o$;

$p_\infty = 53\ 779.11\ N/m^2$ ($1123.20\ lb/ft^2$);
$q_\infty = 37\ 434.70\ N/m^2$ ($781.84\ lb/ft^2$);
$p_{t,\infty} = 101\ 467.84\ N/m^2$ ($2119.20\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1114	.8449	.8719	.8898
1.146	1.1138	.8345	.8656	.8842
1.094	1.1161	.8158	.8550	.8747
1.042	1.1152	.7958	.8447	.8655
.989	1.1143	.7664	.8293	.8517
.937	1.1114	.7545	.8239	.8468
.885	1.1086	.7278	.8102	.8343
.833	1.1065	.6986	.7946	.8201
.781	1.1043	.6868	.7886	.8146
.729	1.1011	.6726	.7816	.8081
.677	1.0979	.6563	.7732	.8003
.625	1.0980	.6383	.7624	.7904
.573	1.0982	.6204	.7516	.7803
.521	1.0969	.6194	.7514	.7801
.469	1.0957	.6031	.7419	.7712
.417	1.0979	.5890	.7325	.7624
.366	1.1001	.5713	.7207	.7512
.313	1.1059	.5699	.7179	.7486
.260	1.1117	.5499	.7033	.7348
.208	1.1242	.5082	.6724	.7052
.156	1.1368	.4643	.6391	.6730
-.156	1.1532	.5129	.6669	.6999
-.208	1.1412	.5610	.7012	.7327
-.260	1.1291	.5996	.7287	.7589
-.313	1.1269	.6198	.7416	.7709
-.366	1.1248	.6468	.7583	.7865
-.417	1.1247	.6694	.7714	.7987
-.469	1.1247	.6913	.7840	.8103
-.521	1.1262	.7116	.7949	.8204
-.573	1.1277	.7201	.7991	.8242
-.625	1.1317	.7423	.8099	.8340
-.677	1.1357	.7607	.8184	.8418
-.729	1.1399	.7781	.8262	.8489
-.781	1.1441	.7964	.8343	.8562
-.833	1.1468	.8134	.8422	.8633
-.885	1.1494	.8286	.8490	.8694
-.937	1.1539	.8355	.8509	.8711
-.989	1.1584	.8393	.8512	.8713
-1.042	1.1517	.8546	.8614	.8804
-1.094	1.1449	.8710	.8722	.8900
-1.146	1.1420	.8785	.8771	.8943
-1.198	1.1392	.8863	.8821	.8988

TABLE 11.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT) - Concluded

(e) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 5^\circ$;

p_∞ = 53 721.65 N/m^2 (1122.00 lb/ft^2);
q_∞ = 37 503.17 N/m^2 (783.27 lb/ft^2);
$p_{t,\infty}$ = 101 530.09 N/m^2 (2120.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1127	.8411	.8694	.8876
1.146	1.1172	.8392	.8667	.8852
1.094	1.1217	.8271	.8587	.8781
1.042	1.1207	.8009	.8454	.8662
.989	1.1197	.7700	.8293	.8517
.937	1.1170	.7536	.8214	.8445
.885	1.1143	.7322	.8106	.8348
.833	1.1128	.7121	.8000	.8250
.781	1.1114	.7065	.7973	.8226
.729	1.1084	.6898	.7889	.8149
.677	1.1054	.6778	.7831	.8095
.625	1.1052	.6724	.7800	.8067
.573	1.1050	.6492	.7665	.7942
.521	1.1035	.6415	.7624	.7905
.469	1.1020	.6245	.7528	.7815
.417	1.1050	.6229	.7508	.7796
.366	1.1081	.6066	.7398	.7694
.313	1.1139	.5909	.7284	.7586
.260	1.1197	.5774	.7181	.7489
.208	1.1339	.5415	.6911	.7232
.156	1.1482	.4805	.6469	.6806
-.156	1.1597	.5307	.6765	.7092
-.208	1.1476	.5751	.7079	.7392
-.260	1.1355	.6155	.7362	.7660
-.313	1.1324	.6297	.7457	.7749
-.366	1.1294	.6499	.7586	.7869
-.417	1.1281	.6641	.7672	.7949
-.469	1.1267	.6786	.7761	.8031
-.521	1.1290	.7023	.7887	.8147
-.573	1.1313	.7133	.7940	.8196
-.625	1.1339	.7345	.8048	.8295
-.677	1.1365	.7491	.8119	.8359
-.729	1.1385	.7718	.8234	.8463
-.781	1.1406	.7915	.8330	.8551
-.833	1.1432	.8034	.8383	.8598
-.885	1.1459	.8187	.8453	.8661
-.937	1.1507	.8254	.8469	.8676
-.989	1.1556	.8291	.8470	.8676
-1.042	1.1512	.8510	.8598	.8791
-1.094	1.1468	.8563	.8641	.8829
-1.146	1.1417	.8726	.8742	.8919
-1.198	1.1365	.8805	.8802	.8971

(f) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 5^\circ$;

p_∞ = 53 764.74 N/m^2 (1122.90 lb/ft^2);
q_∞ = 37 467.26 N/m^2 (782.52 lb/ft^2);
$p_{t,\infty}$ = 101 506.15 N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1164	.8469	.8702	.8883
1.146	1.1211	.8428	.8670	.8855
1.094	1.1233	.8191	.8537	.8736
1.042	1.1238	.7975	.8424	.8635
.989	1.1239	.7765	.8312	.8534
.937	1.1215	.7673	.8271	.8497
.885	1.1192	.7384	.8123	.8362
.833	1.1183	.7283	.8070	.8314
.781	1.1175	.7152	.8000	.8256
.729	1.1142	.7083	.7973	.8226
.677	1.1108	.6905	.7884	.8144
.625	1.1101	.6806	.7830	.8094
.573	1.1093	.6669	.7753	.8024
.521	1.1095	.6572	.7696	.7971
.469	1.1097	.6492	.7648	.7926
.417	1.1115	.6443	.7613	.7894
.366	1.1135	.6326	.7538	.7825
.313	1.1195	.6063	.7359	.7656
.260	1.1256	.5825	.7194	.7501
.208	1.1390	.5435	.6908	.7229
.156	1.1524	.4931	.6541	.6876
-.156	1.1579	.5335	.6788	.7114
-.208	1.1467	.5872	.7156	.7465
-.260	1.1355	.6109	.7335	.7634
-.313	1.1324	.6390	.7512	.7799
-.366	1.1293	.6549	.7615	.7896
-.417	1.1290	.6674	.7689	.7964
-.469	1.1286	.6891	.7814	.8079
-.521	1.1281	.7006	.7881	.8141
-.573	1.1277	.7162	.7969	.8222
-.625	1.1306	.7273	.8021	.8269
-.677	1.1335	.7425	.8093	.8335
-.729	1.1370	.7644	.8199	.8432
-.781	1.1405	.7738	.8237	.8466
-.833	1.1427	.7812	.8268	.8495
-.885	1.1448	.7968	.8343	.8562
-.937	1.1488	.8096	.8395	.8609
-.989	1.1523	.8240	.8455	.8662
-1.042	1.1486	.8363	.8533	.8732
-1.094	1.1444	.8538	.8637	.8826
-1.146	1.1380	.8637	.8712	.8892
-1.198	1.1315	.8710	.8774	.8946

TABLE 12.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.83×10^6 PER METER (4.22×10^6 PER FOOT)

(a) x/D = 6.00; y/D = 0.0; $\alpha = 5^\circ$;
p_∞ = 41 866.50 N/m^2 (874.40 lb/ft^2);
q_∞ = 42 190.65 N/m^2 (881.17 lb/ft^2);
$p_{t,\infty}$ = 101 506.15 N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.2587	.8801	.8362	.8658
1.146	1.2527	.8762	.8363	.8659
1.094	1.2466	.8731	.8369	.8664
1.042	1.2606	.8468	.8196	.8514
.989	1.2745	.8170	.8006	.8340
.937	1.2580	.7942	.7946	.8295
.885	1.2415	.7573	.7810	.8175
.833	1.2315	.7187	.7640	.8022
.781	1.2214	.6892	.7512	.7907
.729	1.2057	.6461	.7320	.7732
.677	1.1900	.5861	.7018	.7453
.625	1.1866	.5482	.6797	.7247
.573	1.1832	.5074	.6548	.7011
.521	1.1796	.4843	.6408	.6877
.469	1.1761	.4611	.6262	.6730
.417	1.1781	.4532	.6203	.6679
.366	1.1801	.4431	.6128	.6606
.313	1.1863	.4380	.6075	.6555
.260	1.1936	.4332	.6025	.6500
.208	1.2142	.4013	.5753	.6238
.156	1.2349	.3490	.5316	.5802
-.156	1.3137	.4213	.5663	.6149
-.208	1.3063	.4733	.6019	.6500
-.260	1.2990	.5238	.6350	.6822
-.313	1.3047	.5624	.6566	.7028
-.366	1.3105	.6083	.6813	.7262
-.417	1.3224	.6656	.7095	.7525
-.469	1.3344	.7358	.7426	.7829
-.521	1.3472	.7737	.7578	.7967
-.573	1.3500	.8002	.7671	.8050
-.625	1.3722	.8128	.7696	.8073
-.677	1.3844	.8179	.7686	.8064
-.729	1.3975	.8147	.7635	.8018
-.781	1.4105	.8088	.7572	.7961
-.833	1.4162	.8075	.7551	.7942
-.885	1.4220	.8031	.7515	.7910
-.937	1.4264	.8003	.7490	.7887
-.989	1.4303	.7978	.7467	.7860
-1.042	1.4299	.7997	.7478	.7870
-1.094	1.4290	.7997	.7481	.7879
-1.146	1.4076	.8105	.7588	.7970
-1.198	1.3863	.8245	.7712	.8087

(b) x/D = 7.00; y/D = 0.0; $\alpha = 5^\circ$;
p_∞ = 41 871.29 N/m^2 (874.50 lb/ft^2);
q_∞ = 42 199.74 N/m^2 (881.36 lb/ft^2);
$p_{t,\infty}$ = 101 525.30 N/m^2 (2120.40 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3730	.8112	.7684	.8062
1.146	1.3680	.8026	.7660	.8040
1.094	1.3622	.7992	.7660	.8040
1.042	1.3559	.7734	.7552	.7943
.989	1.3496	.7380	.7395	.7801
.937	1.3393	.7164	.7314	.7726
.885	1.3290	.6898	.7204	.7626
.833	1.3195	.6451	.6992	.7430
.781	1.3100	.6146	.6849	.7296
.729	1.2937	.5918	.6750	.7203
.677	1.2875	.5512	.6543	.7006
.625	1.2852	.5261	.6398	.6867
.573	1.2829	.4915	.6190	.6667
.521	1.2816	.4676	.6040	.6521
.469	1.2804	.4627	.6011	.6493
.417	1.2796	.4417	.5875	.6359
.366	1.2789	.4424	.5881	.6365
.313	1.2847	.4304	.5788	.6273
.260	1.2905	.4159	.5677	.6163
.208	1.3073	.3784	.5380	.5866
.156	1.3240	.3316	.5004	.5485
-.156	1.3863	.3947	.5335	.5820
-.208	1.3811	.4565	.5749	.6235
-.260	1.3753	.4987	.6022	.6503
-.313	1.3780	.5365	.6239	.6715
-.366	1.3807	.5761	.6459	.6926
-.417	1.3886	.6029	.6589	.7050
-.469	1.3965	.6637	.6894	.7338
-.521	1.4062	.7070	.7091	.7521
-.573	1.4159	.7365	.7212	.7634
-.625	1.4250	.7600	.7303	.7717
-.677	1.4342	.7725	.7339	.7750
-.729	1.4431	.7817	.7360	.7769
-.781	1.4520	.7798	.7328	.7740
-.833	1.4567	.7817	.7325	.7737
-.885	1.4613	.7790	.7301	.7715
-.937	1.4652	.7785	.7289	.7704
-.989	1.4691	.7754	.7265	.7682
-1.042	1.4633	.7790	.7296	.7711
-1.094	1.4574	.7842	.7335	.7746
-1.146	1.4491	.7879	.7374	.7781
-1.198	1.4407	.7937	.7422	.7825

TABLE 12.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.83×10^6 PER METER (4.22×10^6 PER FOOT) - Continued

(c) x/D = 8.39; y/D = 0.0; $\alpha = 5^o$;
p_∞ = 41 890.44 N/m^2 (874.90 lb/ft^2);
q_∞ = 42 191.60 N/m^2 (881.19 lb/ft^2);
$p_{t,\infty}$ = 101 520.51 N/m^2 (2120.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3427	.8209	.7819	.8183
1.146	1.3411	.8040	.7743	.8115
1.094	1.3396	.7967	.7712	.8087
1.042	1.3386	.7747	.7607	.7993
.989	1.3376	.7390	.7433	.7835
.937	1.3330	.7095	.7296	.7710
.885	1.3283	.6749	.7128	.7555
.833	1.3238	.6560	.7039	.7473
.781	1.3193	.6294	.6907	.7350
.729	1.3119	.6102	.6820	.7268
.677	1.3044	.5823	.6681	.7138
.625	1.3040	.5554	.6526	.6990
.573	1.3035	.5335	.6397	.6867
.521	1.3031	.5162	.6294	.6767
.469	1.3027	.5078	.6244	.6719
.417	1.3051	.4998	.6189	.6665
.366	1.3076	.4935	.6143	.6621
.313	1.3148	.4856	.6077	.6557
.260	1.3220	.4659	.5937	.6419
.208	1.3401	.4369	.5710	.6195
.156	1.3583	.3776	.5273	.5758
-.156	1.4015	.4316	.5549	.6036
-.208	1.3912	.4844	.5901	.6384
-.260	1.3809	.5264	.6174	.6651
-.313	1.3828	.5502	.6308	.6780
-.366	1.3847	.5847	.6498	.6963
-.417	1.3880	.6076	.6616	.7076
-.469	1.3912	.6511	.6841	.7288
-.521	1.3981	.6860	.7005	.7441
-.573	1.4050	.7203	.7160	.7585
-.625	1.4113	.7465	.7273	.7689
-.677	1.4176	.7669	.7355	.7764
-.729	1.4249	.7777	.7388	.7794
-.781	1.4323	.7867	.7411	.7815
-.833	1.4352	.7886	.7413	.7817
-.885	1.4380	.7921	.7422	.7825
-.937	1.4433	.7909	.7403	.7808
-.989	1.4485	.7874	.7373	.7780
-1.042	1.4401	.7939	.7425	.7827
-1.094	1.4316	.7984	.7468	.7867
-1.146	1.4194	.8075	.7542	.7934
-1.198	1.4072	.8144	.7607	.7993

(d) x/D = 9.00; y/D = 0.0; $\alpha = 5^o$;
p_∞ = 41 856.92 N/m^2 (874.20 lb/ft^2);
q_∞ = 42 180.59 N/m^2 (880.96 lb/ft^2);
$p_{t,\infty}$ = 101 482.21 N/m^2 (2119.50 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3315	.8261	.7877	.8234
1.146	1.3338	.8150	.7817	.8181
1.094	1.3361	.7970	.7723	.8097
1.042	1.3338	.7787	.7641	.8023
.989	1.3315	.7518	.7514	.7909
.937	1.3265	.7449	.7494	.7891
.885	1.3215	.6959	.7257	.7674
.833	1.3174	.6875	.7224	.7644
.781	1.3133	.6477	.7023	.7458
.729	1.3084	.6172	.6868	.7314
.677	1.3036	.6041	.6807	.7257
.625	1.3014	.5784	.6667	.7124
.573	1.2991	.5578	.6553	.7015
.521	1.2965	.5440	.6478	.6944
.469	1.2938	.5412	.6468	.6934
.417	1.2971	.5246	.6360	.6831
.366	1.3004	.5215	.6332	.6804
.313	1.3077	.5107	.6249	.6724
.260	1.3149	.5001	.6167	.6644
.208	1.3343	.4588	.5864	.6348
.155	1.3537	.3965	.5412	.5898
-.156	1.3884	.4541	.5719	.6205
-.208	1.3752	.5108	.6095	.6574
-.260	1.3619	.5524	.6369	.6839
-.313	1.3643	.5775	.6506	.6971
-.366	1.3667	.6006	.6629	.7088
-.417	1.3698	.6311	.6787	.7238
-.469	1.3729	.6618	.6943	.7384
-.521	1.3779	.6869	.7060	.7493
-.573	1.3829	.7178	.7205	.7626
-.625	1.3889	.7450	.7324	.7736
-.677	1.3949	.7681	.7421	.7824
-.729	1.4034	.7796	.7453	.7854
-.781	1.4119	.7873	.7467	.7866
-.833	1.4147	.7956	.7499	.7895
-.885	1.4174	.8006	.7516	.7910
-.937	1.4213	.8019	.7511	.7906
-.989	1.4252	.8000	.7492	.7889
-1.042	1.4140	.8082	.7560	.7951
-1.094	1.4028	.8164	.7629	.8012
-1.146	1.3906	.8229	.7693	.8070
-1.198	1.3784	.8304	.7762	.8131

TABLE 12.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.83×10^6 PER METER (4.22×10^6 PER FOOT) - Concluded

(e) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 5^o$;
$p_\infty = 41\ 885.65\ N/m^2$ ($874.80\ lb/ft^2$);
$q_\infty = 42\ 191.60\ N/m^2$ ($881.19\ lb/ft^2$);
$p_{t,\infty} = 101\ 515.72\ N/m^2$ ($2120.20\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.3040	.8439	.8045	.8382
1.146	1.3073	.8372	.8002	.8345
1.094	1.3107	.8139	.7880	.8237
1.042	1.3104	.7977	.7802	.8167
.989	1.3102	.7648	.7640	.8022
.937	1.3062	.7577	.7616	.8001
.885	1.3021	.7242	.7458	.7858
.833	1.2962	.6997	.7347	.7757
.781	1.2903	.6862	.7293	.7707
.729	1.2828	.6675	.7213	.7634
.677	1.2754	.6425	.7098	.7527
.625	1.2756	.6262	.7007	.7443
.573	1.2758	.6041	.6881	.7325
.521	1.2741	.5962	.6840	.7287
.469	1.2724	.5810	.6757	.7209
.417	1.2752	.5742	.6710	.7165
.366	1.2779	.5647	.6648	.7105
.313	1.2857	.5557	.6574	.7036
.260	1.2935	.5386	.6453	.6920
.208	1.3137	.4998	.6168	.6645
.156	1.3340	.4389	.5736	.6221
-.156	1.3537	.4887	.6008	.6490
-.208	1.3425	.5527	.6416	.6885
-.260	1.3313	.5873	.6642	.7100
-.313	1.3327	.6136	.6786	.7236
-.366	1.3341	.6340	.6894	.7338
-.417	1.3361	.6552	.7003	.7439
-.469	1.3382	.6812	.7135	.7562
-.521	1.3459	.7063	.7244	.7663
-.573	1.3536	.7285	.7336	.7747
-.625	1.3579	.7562	.7462	.7862
-.677	1.3622	.7668	.7503	.7898
-.729	1.3707	.7808	.7547	.7939
-.781	1.3793	.7961	.7597	.7984
-.833	1.3802	.8097	.7659	.8040
-.885	1.3812	.8161	.7687	.8064
-.937	1.3869	.8172	.7676	.8055
-.989	1.3927	.8149	.7649	.8031
-1.042	1.3867	.8204	.7692	.8069
-1.094	1.3806	.8261	.7735	.8108
-1.146	1.3600	.8366	.7843	.8204
-1.198	1.3394	.8503	.7968	.8314

(f) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 5^o$;
$p_\infty = 41\ 871.29\ N/m^2$ ($874.50\ lb/ft^2$);
$q_\infty = 42\ 199.74\ N/m^2$ ($881.36\ lb/ft^2$);
$p_{t,\infty} = 101\ 525.30\ N/m^2$ ($2120.40\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1692	.9115	.8829	.9055
1.146	1.1949	.8950	.8654	.8908
1.094	1.2206	.8752	.8468	.8749
1.042	1.2614	.8348	.8135	.8461
.989	1.3021	.7972	.7825	.8188
.937	1.2973	.7752	.7730	.8103
.885	1.2925	.7554	.7645	.8027
.833	1.2881	.7374	.7566	.7956
.781	1.2837	.7178	.7478	.7876
.729	1.2741	.6965	.7394	.7799
.677	1.2645	.6881	.7377	.7784
.625	1.2638	.6645	.7251	.7669
.573	1.2631	.6486	.7166	.7591
.521	1.2601	.6381	.7116	.7544
.469	1.2572	.6234	.7042	.7476
.417	1.2570	.6155	.6997	.7434
.366	1.2568	.6068	.6948	.7389
.313	1.2630	.6010	.6898	.7342
.260	1.2692	.5843	.6785	.7236
.208	1.2883	.5393	.6470	.6936
.156	1.3074	.4739	.6021	.6502
-.156	1.3184	.5114	.6228	.6704
-.208	1.3071	.5798	.6660	.7118
-.260	1.2959	.6194	.6914	.7356
-.313	1.2978	.6395	.7020	.7455
-.366	1.2996	.6609	.7131	.7558
-.417	1.3008	.6822	.7242	.7660
-.469	1.3020	.7021	.7343	.7754
-.521	1.3081	.7212	.7425	.7828
-.573	1.3142	.7359	.7483	.7881
-.625	1.3210	.7519	.7544	.7936
-.677	1.3278	.7793	.7661	.8041
-.729	1.3379	.7876	.7672	.8052
-.781	1.3479	.8014	.7711	.8086
-.833	1.3538	.8068	.7720	.8094
-.885	1.3596	.8141	.7738	.8110
-.937	1.3576	.8233	.7788	.8155
-.989	1.3555	.8306	.7828	.8190
-1.042	1.2395	.8903	.8475	.8755
-1.094	1.1236	.9409	.9151	.9322
-1.146	1.1177	.9440	.9190	.9354
-1.198	1.1118	.9482	.9235	.9391

TABLE 13.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT)

(a) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 98\ 776.97\ N/m^2$ ($2063.00\ lb/ft^2$);
$q_\infty = 2679.38\ N/m^2$ ($55.96\ lb/ft^2$);
$p_{t,\infty} = 101\ 482.21\ N/m^2$ ($2119.50\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0002	.8405	.9167	.9172
1.146	1.0003	.8485	.9210	.9215
1.094	1.0004	.8146	.9024	.9030
1.042	1.0005	.7863	.8865	.8872
.989	1.0006	.7859	.8863	.8870
.937	1.0006	.7390	.8594	.8603
.885	1.0007	.7257	.8516	.8525
.833	1.0006	.7027	.8380	.8390
.781	1.0006	.7160	.8459	.8468
.729	1.0005	.6747	.8212	.8222
.677	1.0004	.6978	.8352	.8362
.625	1.0004	.6733	.8204	.8214
.573	1.0005	.6852	.8276	.8286
.521	1.0006	.6691	.8177	.8188
.469	1.0007	.6893	.8300	.8309
.417	1.0009	.6858	.8278	.8288
.366	1.0011	.6627	.8136	.8147
.313	1.0012	.6549	.8088	.8099
.260	1.0014	.6472	.8039	.8050
.208	1.0019	.5854	.7644	.7656
.156	1.0024	.5544	.7437	.7450
-.156	1.0031	.6314	.7934	.7945
-.208	1.0026	.6553	.8085	.8096
-.260	1.0021	.6625	.8131	.8141
-.313	1.0018	.7276	.8522	.8531
-.366	1.0014	.7340	.8561	.8570
-.417	1.0015	.7584	.8703	.8711
-.469	1.0015	.7605	.8714	.8723
-.521	1.0015	.7724	.8782	.8790
-.573	1.0016	.7759	.8801	.8809
-.625	1.0016	.8213	.9055	.9062
-.677	1.0016	.8080	.8982	.8989
-.729	1.0016	.8408	.9163	.9168
-.781	1.0016	.8541	.9234	.9240
-.833	1.0017	.8457	.9189	.9194
-.885	1.0018	.8652	.9294	.9299
-.937	1.0019	.8833	.9390	.9394
-.989	1.0020	.9098	.9529	.9532
-1.042	1.0019	.9161	.9562	.9565
-1.094	1.0018	.9308	.9639	.9642
-1.146	1.0019	.9280	.9624	.9627
-1.198	1.0019	.9307	.9638	.9641

(b) $x/D = 7.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 98\ 757.82\ N/m^2$ ($2062.60\ lb/ft^2$);
$q_\infty = 2701.40\ N/m^2$ ($56.42\ lb/ft^2$);
$p_{t,\infty} = 101\ 482.21\ N/m^2$ ($2119.50\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0004	.8656	.9302	.9307
1.146	1.0005	.8607	.9275	.9280
1.094	1.0005	.8171	.9037	.9043
1.042	1.0006	.7873	.8870	.8878
.989	1.0006	.7990	.8936	.8943
.937	1.0005	.7832	.8848	.8855
.885	1.0003	0.0000	0.0000	0.0000
.833	1.0006	.7568	.8697	.8705
.781	1.0009	.7352	.8571	.8580
.729	1.0006	.7464	.8637	.8645
.677	1.0004	.7215	.8492	.8502
.625	1.0008	.7249	.8511	.8520
.573	1.0011	.7088	.8414	.8424
.521	1.0010	.7179	.8469	.8478
.469	1.0008	.7075	.8408	.8418
.417	1.0010	.7095	.8419	.8429
.366	1.0013	.7032	.8381	.8390
.313	1.0014	.7018	.8372	.8381
.260	1.0015	.6726	.8195	.8206
.208	1.0020	.6357	.7965	.7977
.156	1.0025	.5821	.7620	.7633
-.156	1.0031	.6390	.7981	.7993
-.208	1.0025	.6995	.8353	.8363
-.260	1.0019	.7406	.8598	.8606
-.313	1.0018	.7559	.8686	.8695
-.366	1.0016	.7684	.8758	.8766
-.417	1.0014	.7753	.8799	.8807
-.469	1.0012	.7906	.8886	.8893
-.521	1.0013	.8058	.8971	.8978
-.573	1.0013	.7795	.8823	.8831
-.625	1.0013	.8183	.9040	.9046
-.677	1.0013	.8155	.9025	.9031
-.729	1.0013	.8577	.9255	.9261
-.781	1.0013	.8612	.9274	.9279
-.833	1.0014	.8930	.9443	.9447
-.885	1.0015	.8667	.9303	.9307
-.937	1.0016	.8999	.9479	.9482
-.989	1.0017	.9054	.9507	.9511
-1.042	1.0016	.9116	.9540	.9544
-1.094	1.0015	.9317	.9645	.9648
-1.146	1.0014	.9414	.9695	.9698
-1.198	1.0014	.9510	.9745	.9747

TABLE 13.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT) - Continued

(c) $x/D = 8.39$; $y/D = 0.0$; $\alpha = 10^o$;
$p_\infty = 98\ 815.28\ N/m^2\ (2063.80\ lb/ft^2)$;
$q_\infty = 2564.47\ N/m^2\ (53.56\ lb/ft^2)$;
$p_{t,\infty} = 101\ 405.60\ N/m^2\ (2117.90\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0002	.8560	.9251	.9256
1.146	1.0003	.8348	.9135	.9141
1.094	1.0004	.8223	.9066	.9072
1.042	1.0006	.8062	.8976	.8982
.989	1.0008	.7930	.8901	.8908
.937	1.0007	.7916	.8894	.8901
.885	1.0006	.7828	.8845	.8852
.833	1.0007	.7645	.8741	.8748
.781	1.0009	.7594	.8711	.8718
.729	1.0008	.7872	.8869	.8876
.677	1.0006	.7770	.8812	.8819
.625	1.0008	.7419	.8610	.8618
.573	1.0009	.7652	.8744	.8751
.521	1.0010	.7806	.8830	.8838
.469	1.0011	.7520	.8667	.8675
.417	1.0011	.7579	.8701	.8708
.366	1.0012	.7228	.8496	.8505
.313	1.0016	.7220	.8490	.8499
.260	1.0020	.7007	.8362	.8371
.208	1.0024	.6757	.8210	.8220
.156	1.0027	.6244	.7891	.7902
-.156	1.0032	.6521	.8063	.8073
-.208	1.0028	.6921	.8308	.8317
-.260	1.0024	.7291	.8528	.8537
-.313	1.0021	.7515	.8660	.8668
-.366	1.0017	.7884	.8872	.8879
-.417	1.0015	.7805	.8828	.8835
-.469	1.0012	.8134	.9013	.9019
-.521	1.0013	.8258	.9081	.9087
-.573	1.0013	.8148	.9021	.9027
-.625	1.0013	.8353	.9134	.9139
-.677	1.0012	.8265	.9086	.9092
-.729	1.0013	.8695	.9319	.9324
-.781	1.0014	.8717	.9330	.9335
-.833	1.0014	.8608	.9272	.9276
-.885	1.0013	.8848	.9400	.9404
-.937	1.0015	.8994	.9477	.9480
-.989	1.0016	.9052	.9506	.9510
-1.042	1.0014	.9300	.9637	.9639
-1.094	1.0013	.9402	.9691	.9693
-1.146	1.0013	.9665	.9825	.9826
-1.198	1.0013	.9490	.9735	.9737

(d) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 10^o$;
$p_\infty = 98\ 800.91\ N/m^2\ (2063.50\ lb/ft^2)$;
$q_\infty = 2648.26\ N/m^2\ (55.31\ lb/ft^2)$;
$p_{t,\infty} = 101\ 472.63\ N/m^2\ (2119.30\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0005	.8485	.9209	.9215
1.146	1.0004	.8104	.9000	.9007
1.094	1.0004	.8316	.9117	.9123
1.042	1.0008	.7898	.8884	.8891
.989	1.0011	.7848	.8854	.8861
.937	1.0011	.7615	.8721	.8729
.885	1.0010	.7579	.8702	.8710
.833	1.0010	.7530	.8673	.8681
.781	1.0010	.7622	.8726	.8734
.729	1.0009	.7721	.8783	.8790
.677	1.0009	.7650	.8743	.8750
.625	1.0011	.7763	.8806	.8814
.573	1.0012	.7452	.8627	.8635
.521	1.0012	.7551	.8684	.8693
.469	1.0011	.7565	.8693	.8701
.417	1.0013	.7685	.8760	.8768
.366	1.0016	.7267	.8518	.8527
.313	1.0018	.7224	.8492	.8501
.260	1.0021	.7096	.8415	.8424
.208	1.0025	.7031	.8375	.8384
.156	1.0029	.6116	.7809	.7821
-.156	1.0030	.6669	.8154	.8165
-.208	1.0025	.7116	.8425	.8435
-.260	1.0021	.7478	.8639	.8647
-.313	1.0019	.7641	.8733	.8741
-.366	1.0016	.7663	.8747	.8754
-.417	1.0016	.7783	.8815	.8823
-.469	1.0016	.7988	.8931	.8937
-.521	1.0016	.8221	.9060	.9066
-.573	1.0016	.7861	.8859	.8867
-.625	1.0014	.8236	.9069	.9075
-.677	1.0012	.8469	.9197	.9203
-.729	1.0013	.8505	.9216	.9221
-.781	1.0013	.8850	.9401	.9406
-.833	1.0014	.8808	.9379	.9383
-.885	1.0014	.8737	.9341	.9345
-.937	1.0015	.8744	.9344	.9348
-.989	1.0017	.8694	.9317	.9321
-1.042	1.0016	.8928	.9441	.9445
-1.094	1.0015	.8935	.9445	.9449
-1.146	1.0015	.9139	.9553	.9556
-1.198	1.0014	.9203	.9586	.9589

TABLE 13.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.20 AND A REYNOLDS NUMBER OF 3.97×10^6 PER METER (1.21×10^6 PER FOOT) - Concluded

(e) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 10^o$;
$p_\infty = 98\ 824.85$ N/m^2 (2064.00 lb/ft^2);
$q_\infty = 2659.75$ N/m^2 (55.55 lb/ft^2);
$p_{t,\infty} = 101\ 506.15$ N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0009	.8394	.9158	.9164
1.146	1.0008	.8176	.9038	.9045
1.094	1.0008	.7986	.8933	.8940
1.042	1.0009	.8000	.8940	.8947
.989	1.0011	.8042	.8963	.8970
.937	1.0011	.7915	.8892	.8899
.885	1.0011	.7873	.8868	.8875
.833	1.0012	.7838	.8848	.8855
.781	1.0012	.7605	.8716	.8724
.729	1.0012	.7612	.8719	.8727
.677	1.0013	.7563	.8691	.8699
.625	1.0012	.7556	.8687	.8695
.573	1.0012	.7774	.8812	.8820
.521	1.0013	.7626	.8727	.8735
.469	1.0015	.7562	.8690	.8698
.417	1.0015	.7189	.8472	.8481
.366	1.0016	.7435	.8616	.8625
.313	1.0018	.7385	.8586	.8595
.260	1.0021	.7138	.8440	.8449
.208	1.0026	.6869	.8277	.8287
.156	1.0031	.6148	.7829	.7840
-.156	1.0028	.6911	.8302	.8312
-.208	1.0024	.7377	.8579	.8587
-.260	1.0021	.7646	.8735	.8743
-.313	1.0019	.7730	.8784	.8792
-.366	1.0018	.7787	.8817	.8824
-.417	1.0018	.8125	.9006	.9012
-.469	1.0018	.7984	.8928	.8935
-.521	1.0016	.8132	.9011	.9017
-.573	1.0014	.8168	.9031	.9038
-.625	1.0015	.8125	.9007	.9014
-.677	1.0016	.8224	.9061	.9067
-.729	1.0015	.8414	.9166	.9171
-.781	1.0014	.8604	.9269	.9274
-.833	1.0015	.8576	.9253	.9258
-.885	1.0017	.8603	.9268	.9273
-.937	1.0017	.8561	.9245	.9250
-.989	1.0018	.8687	.9313	.9317
-1.042	1.0016	.8786	.9366	.9371
-1.094	1.0014	.8829	.9390	.9394
-1.146	1.0014	.9089	.9527	.9530
-1.198	1.0015	.9124	.9545	.9548

(f) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 10^o$;
$p_\infty = 98\ 642.91$ N/m^2 (2060.20 lb/ft^2);
$q_\infty = 2764.13$ N/m^2 (57.73 lb/ft^2);
$p_{t,\infty} = 101\ 439.11$ N/m^2 (2118.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0009	.8362	.9140	.9146
1.146	1.0010	.8294	.9103	.9109
1.094	1.0011	.8253	.9080	.9086
1.042	1.0012	.8280	.9094	.9100
.989	1.0013	.7928	.8898	.8906
.937	1.0012	.8057	.8971	.8978
.885	1.0010	.8091	.8991	.8997
.833	1.0011	.8044	.8964	.8971
.781	1.0012	.8010	.8944	.8951
.729	1.0013	.7922	.8895	.8902
.677	1.0014	.7617	.8721	.8730
.625	1.0013	.7854	.8857	.8864
.573	1.0011	.7712	.8777	.8785
.521	1.0014	.7874	.8868	.8875
.469	1.0016	.7819	.8836	.8843
.417	1.0017	.7873	.8866	.8873
.366	1.0018	.7575	.8696	.8704
.313	1.0021	.7561	.8686	.8695
.260	1.0024	.7059	.8392	.8401
.208	1.0029	.6970	.8337	.8347
.156	1.0033	.6148	.7828	.7840
-.156	1.0031	.6596	.8109	.8120
-.208	1.0027	.7336	.8554	.8563
-.260	1.0022	.7480	.8639	.8648
-.313	1.0020	.7886	.8872	.8879
-.366	1.0019	.7914	.8888	.8895
-.417	1.0018	.7907	.8884	.8892
-.469	1.0018	.8063	.8971	.8978
-.521	1.0017	.8124	.9005	.9012
-.573	1.0017	.8158	.9024	.9031
-.625	1.0015	.8388	.9152	.9158
-.677	1.0013	.8348	.9131	.9137
-.729	1.0013	.8517	.9223	.9228
-.781	1.0013	.8551	.9241	.9246
-.833	1.0015	.8544	.9236	.9242
-.885	1.0016	.8618	.9276	.9281
-.937	1.0017	.8523	.9224	.9230
-.989	1.0017	.8455	.9187	.9193
-1.042	1.0016	.8618	.9276	.9281
-1.094	1.0016	.8753	.9348	.9353
-1.146	1.0014	.8861	.9407	.9411
-1.198	1.0012	.8916	.9436	.9440

TABLE 14.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT)

(a) $x/D = 5.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
p_∞ = 90 776.18 N/m^2 (1895.90 lb/ft^2);
q_∞ = 10 251.64 N/m^2 (214.11 lb/ft^2);
$p_{t,\infty}$ = 101 448.69 N/m^2 (2118.80 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0026	.8715	.9323	.9342
1.146	1.0037	.8174	.9025	.9051
1.094	1.0048	.7993	.8919	.8948
1.042	1.0039	.8048	.8954	.8982
.989	1.0030	.7657	.8743	.8776
.937	1.0026	.7349	.8561	.8597
.885	1.0023	.6954	.8330	.8370
.833	1.0019	.6689	.8171	.8214
.781	1.0015	.6651	.8149	.8192
.729	1.0013	.6467	.8036	.8081
.677	1.0012	.6387	.7987	.8033
.625	1.0011	.6197	.7868	.7915
.573	1.0011	.6063	.7782	.7831
.521	1.0017	.5873	.7657	.7707
.469	1.0023	.5689	.7534	.7585
.417	1.0029	.5745	.7569	.7620
.366	1.0034	.5717	.7548	.7600
.313	1.0041	.5558	.7440	.7492
.260	1.0043	.5565	.7442	.7494
.208	1.0064	.5480	.7379	.7432
.156	1.0081	.5104	.7115	.7171
-.156	1.0125	.5568	.7415	.7468
-.208	1.0102	.5870	.7623	.7673
-.260	1.0080	.6179	.7829	.7877
-.313	1.0073	.6303	.7910	.7957
-.366	1.0067	.6503	.8037	.8082
-.417	1.0066	.5711	.8165	.8208
-.469	1.0066	.7077	.8384	.8424
-.521	1.0068	.7242	.8481	.8519
-.573	1.0069	.7435	.8593	.8628
-.625	1.0071	.7868	.8839	.8869
-.677	1.0073	.8034	.8931	.8959
-.729	1.0079	.8136	.8985	.9012
-.781	1.0085	.8435	.9146	.9169
-.833	1.0087	.8697	.9286	.9306
-.885	1.0089	.8736	.9305	.9325
-.937	1.0096	.8920	.9400	.9417
-.989	1.0103	.8881	.9376	.9394
-1.042	1.0094	.9051	.9469	.9484
-1.094	1.0085	.9274	.9589	.9601
-1.146	1.0083	.9259	.9583	.9595
-1.198	1.0080	.9285	.9597	.9609

(b) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
p_∞ = 90 958.13 N/m^2 (1899.70 lb/ft^2);
q_∞ = 10 175.03 N/m^2 (212.51 lb/ft^2);
$p_{t,\infty}$ = 101 549.24 N/m^2 (2120.90 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0018	.8386	.9149	.9174
1.146	1.0017	.8381	.9147	.9170
1.094	1.0016	.8174	.9034	.9060
1.042	1.0015	.8030	.8954	.8982
.989	1.0014	.7920	.8893	.8922
.937	1.0019	.7693	.8763	.8795
.885	1.0024	.7170	.8457	.8495
.833	1.0026	.7073	.8399	.8438
.781	1.0027	.6827	.8251	.8292
.729	1.0016	.6971	.8342	.8382
.677	1.0005	.6767	.8225	.8266
.625	1.0012	.6599	.8118	.8162
.573	1.0019	.6572	.8099	.8142
.521	1.0024	.6465	.8031	.8076
.469	1.0029	.6472	.8033	.8078
.417	1.0033	.6570	.8092	.8136
.366	1.0037	.6483	.8037	.8081
.313	1.0044	.6490	.8038	.8083
.260	1.0052	.6262	.7893	.7939
.208	1.0069	.6051	.7752	.7801
.156	1.0086	.5462	.7359	.7411
-.156	1.0124	.5800	.7569	.7619
-.208	1.0104	.6306	.7900	.7947
-.260	1.0084	.6648	.8119	.8163
-.313	1.0075	.6797	.8214	.8255
-.366	1.0066	.7087	.8391	.8430
-.417	1.0063	.7192	.8454	.8491
-.469	1.0061	.7345	.8544	.8580
-.521	1.0067	.7310	.8521	.8558
-.573	1.0073	.7556	.8661	.8695
-.625	1.0069	.7831	.8819	.8849
-.677	1.0066	.7908	.8864	.8893
-.729	1.0067	.8353	.9109	.9133
-.781	1.0069	.8462	.9167	.9190
-.833	1.0071	.8647	.9266	.9286
-.885	1.0073	.8783	.9338	.9356
-.937	1.0080	.8730	.9307	.9326
-.989	1.0087	.8817	.9349	.9368
-1.042	1.0080	.8992	.9445	.9460
-1.094	1.0074	.9194	.9553	.9566
-1.146	1.0070	.9260	.9589	.9601
-1.198	1.0066	.9409	.9668	.9678

TABLE 14.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Continued

(c) $x/D = 7.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 90\ 924.61\ N/m^2$ ($1899.00\ lb/ft^2$);
$q_\infty = 10\ 151.57\ N/m^2$ ($212.02\ lb/ft^2$);
$p_{t,\infty} = 101\ 486.99\ N/m^2$ ($2119.60\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0025	.8416	.9163	.9185
1.146	1.0024	.8377	.9142	.9165
1.094	1.0024	.8156	.9021	.9047
1.042	1.0023	.8188	.9038	.9064
.989	1.0023	.7974	.8919	.8948
.937	1.0027	.7766	.8801	.8832
.885	1.0030	0.0000	0.0000	0.0000
.833	1.0035	.7259	.8505	.8542
.781	1.0039	.7250	.8498	.8535
.729	1.0026	.7171	.8457	.8495
.677	1.0013	.7134	.8441	.8479
.625	1.0024	.7251	.8505	.8541
.573	1.0035	.6985	.8343	.8382
.521	1.0039	.6937	.8313	.8353
.469	1.0042	.6861	.8266	.8306
.417	1.0046	.6871	.8270	.8311
.366	1.0051	.6924	.8300	.8340
.313	1.0059	.6938	.8305	.8345
.260	1.0068	.6455	.8007	.8052
.208	1.0088	.6287	.7894	.7941
.156	1.0107	.5768	.7554	.7605
-.156	1.0138	.6210	.7826	.7874
-.208	1.0113	.6661	.8116	.8159
-.260	1.0088	.6983	.8320	.8360
-.313	1.0077	.7163	.8431	.8469
-.366	1.0067	.7271	.8498	.8535
-.417	1.0065	.7423	.8588	.8623
-.469	1.0063	.7511	.8640	.8674
-.521	1.0063	.7901	.8860	.8890
-.573	1.0064	.7769	.8786	.8817
-.625	1.0061	.7915	.8870	.8899
-.677	1.0058	.8173	.9015	.9041
-.729	1.0063	.8298	.9081	.9105
-.781	1.0068	.8296	.9077	.9102
-.833	1.0070	.8524	.9200	.9222
-.885	1.0071	.8786	.9340	.9359
-.937	1.0074	.8840	.9368	.9386
-.989	1.0076	.8866	.9380	.9398
-1.042	1.0073	.9010	.9457	.9473
-1.094	1.0070	.8992	.9450	.9465
-1.146	1.0066	.9215	.9568	.9581
-1.198	1.0062	.9306	.9617	.9628

(d) $x/D = 8.39$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 90\ 867.15\ N/m^2$ ($1897.80\ lb/ft^2$);
$q_\infty = 10\ 166.89\ N/m^2$ ($212.34\ lb/ft^2$);
$p_{t,\infty} = 101\ 443.90\ N/m^2$ ($2118.70\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0025	.8482	.9198	.9221
1.146	1.0031	.8211	.9047	.9073
1.094	1.0038	.8205	.9041	.9067
1.042	1.0043	.7851	.8841	.8871
.989	1.0049	.7714	.8761	.8793
.937	1.0043	.7668	.8738	.8770
.885	1.0036	.7636	.8723	.8755
.833	1.0037	.7545	.8670	.8704
.781	1.0038	.7425	.8601	.8635
.729	1.0039	.7501	.8644	.8678
.677	1.0040	.7471	.8626	.8660
.625	1.0040	.7263	.8505	.8542
.573	1.0039	.7309	.8532	.8568
.521	1.0046	.7312	.8532	.8568
.469	1.0052	.7372	.8564	.8599
.417	1.0053	.7195	.8460	.8498
.366	1.0054	.7273	.8505	.8542
.313	1.0070	.7115	.8406	.8444
.260	1.0086	.6879	.8259	.8300
.208	1.0107	.6632	.8101	.8144
.156	1.0128	.5964	.7674	.7723
-.156	1.0138	.6374	.7929	.7975
-.208	1.0124	.6727	.8151	.8194
-.260	1.0110	.7185	.8430	.8468
-.313	1.0096	.7225	.8459	.8497
-.366	1.0082	.7575	.8668	.8702
-.417	1.0078	.7480	.8616	.8650
-.469	1.0073	.7745	.8768	.8800
-.521	1.0068	.7971	.8898	.8927
-.573	1.0062	.8044	.8941	.8969
-.625	1.0063	.8014	.8924	.8952
-.677	1.0064	.8433	.9153	.9176
-.729	1.0065	.8298	.9079	.9104
-.781	1.0067	.8443	.9158	.9181
-.833	1.0067	.8578	.9231	.9252
-.885	1.0068	.8607	.9246	.9267
-.937	1.0074	.8754	.9322	.9341
-.989	1.0080	.8691	.9286	.9306
-1.042	1.0074	.8923	.9412	.9428
-1.094	1.0067	.8981	.9445	.9461
-1.146	1.0063	.9000	.9457	.9473
-1.198	1.0058	.9270	.9600	.9612

TABLE 14.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Continued

(e) x/D = 9.00; y/D = 0.0; $\alpha = 10^o$;
p_∞ = 90 934.19 N/m^2 (1899.20 lb/ft^2);
q_∞ = 10 123.32 N/m^2 (211.43 lb/ft^2);
$p_{t,\infty}$ = 101 467.84 N/m^2 (2119.20 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0022	.8308	.9105	.9129
1.146	1.0022	.8213	.9053	.9078
1.094	1.0022	.8266	.9082	.9107
1.042	1.0034	.7804	.8819	.8849
.989	1.0046	.7843	.8835	.8866
.937	1.0041	.7783	.8804	.8835
.885	1.0035	.7726	.8774	.8806
.833	1.0042	.7567	.8681	.8714
.781	1.0049	.7404	.8584	.8619
.729	1.0050	.7522	.8652	.8685
.677	1.0051	.7315	.8531	.8567
.625	1.0051	.7397	.8578	.8614
.573	1.0052	.7429	.8597	.8632
.521	1.0053	.7418	.8590	.8625
.469	1.0054	.7322	.8534	.8570
.417	1.0060	.7377	.8563	.8599
.366	1.0066	.7219	.8468	.8506
.313	1.0080	.7009	.8339	.8378
.260	1.0094	.7033	.8347	.8387
.208	1.0111	.6729	.8157	.8200
.156	1.0129	.6108	.7766	.7814
-.156	1.0129	.6498	.8009	.8054
-.208	1.0108	.7060	.8357	.8396
-.260	1.0088	.7463	.8601	.8636
-.313	1.0083	.7529	.8641	.8675
-.366	1.0079	.7644	.8709	.8741
-.417	1.0076	.7665	.8722	.8754
-.469	1.0074	.7736	.8763	.8795
-.521	1.0069	.7895	.8855	.8884
-.573	1.0065	.8047	.8942	.8969
-.625	1.0067	.8205	.9028	.9054
-.677	1.0070	.8159	.9001	.9028
-.729	1.0067	.8253	.9054	.9080
-.781	1.0063	.8374	.9122	.9146
-.833	1.0063	.8522	.9202	.9224
-.885	1.0063	.8550	.9218	.9239
-.937	1.0071	.8706	.9297	.9317
-.989	1.0080	.8764	.9324	.9343
-1.042	1.0074	.8822	.9358	.9376
-1.094	1.0067	.9006	.9458	.9473
-1.146	1.0063	.9177	.9550	.9563
-1.198	1.0058	.9209	.9568	.9581

(f) x/D = 10.00; y/D = 0.0; $\alpha = 10^o$;
p_∞ = 90 924.61 N/m^2 (1899.00 lb/ft^2);
q_∞ = 10 153.97 N/m^2 (212.07 lb/ft^2);
$p_{t,\infty}$ = 101 486.99 N/m^2 (2119.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0030	.8435	.9170	.9193
1.146	1.0036	.8296	.9092	.9116
1.094	1.0042	.8220	.9048	.9073
1.042	1.0046	.7899	.8867	.8897
.989	1.0050	.7900	.8866	.8896
.937	1.0045	.8025	.8938	.8966
.885	1.0040	.7848	.8841	.8871
.833	1.0043	.7603	.8701	.8734
.781	1.0046	.7696	.8753	.8784
.729	1.0051	.7657	.8728	.8761
.677	1.0056	.7569	.8676	.8709
.625	1.0055	.7544	.8662	.8696
.573	1.0055	.7470	.8620	.8654
.521	1.0056	.7536	.8656	.8690
.469	1.0058	.7488	.8628	.8663
.417	1.0066	.7431	.8592	.8627
.366	1.0075	.7304	.8514	.8551
.313	1.0082	.7249	.8479	.8516
.260	1.0089	.7059	.8365	.8404
.208	1.0112	.6739	.8164	.8206
.156	1.0135	.6090	.7752	.7800
-.156	1.0125	.6533	.8032	.8077
-.208	1.0108	.7097	.8379	.8418
-.260	1.0091	.7377	.8550	.8586
-.313	1.0085	.7789	.8788	.8819
-.366	1.0079	.7734	.8760	.8792
-.417	1.0076	.7928	.8870	.8900
-.469	1.0073	.8058	.8944	.8972
-.521	1.0071	.7976	.8899	.8928
-.573	1.0069	.8181	.9014	.9040
-.625	1.0065	.8197	.9024	.9050
-.677	1.0062	.8213	.9035	.9060
-.729	1.0062	.8420	.9148	.9171
-.781	1.0061	.8508	.9196	.9218
-.833	1.0061	.8518	.9201	.9223
-.885	1.0060	.8606	.9249	.9270
-.937	1.0069	.8591	.9237	.9258
-.989	1.0077	.8759	.9323	.9342
-1.042	1.0070	.8798	.9347	.9365
-1.094	1.0063	.8920	.9415	.9432
-1.146	1.0062	.9007	.9461	.9477
-1.198	1.0062	.9116	.9518	.9532

TABLE 14.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.40 AND A REYNOLDS NUMBER OF 7.54×10^6 PER METER (2.30×10^6 PER FOOT) - Concluded

(g) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 90\ 905.46\ N/m^2\ (1898.6\ lb/ft^2)$;
$q_\infty = 10\ 148.70\ N/m^2\ (211.96\ lb/ft^2)$;
$p_{t,\infty} = 101\ 463.05\ N/m^2\ (2119.10\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0032	.8471	.9189	.9211
1.146	1.0038	.8246	.9064	.9089
1.094	1.0043	.8169	.9019	.9045
1.042	1.0045	.8107	.8984	.9011
.989	1.0046	.8074	.8965	.8992
.937	1.0046	.7947	.8895	.8923
.885	1.0045	.7954	.8899	.8928
.833	1.0048	.7928	.8883	.8912
.781	1.0051	.7824	.8823	.8853
.729	1.0049	.7835	.8830	.8860
.677	1.0047	.7859	.8845	.8874
.625	1.0048	.7963	.8902	.8931
.573	1.0049	.7820	.8822	.8852
.521	1.0054	.7880	.8853	.8883
.469	1.0058	.7792	.8802	.8833
.417	1.0063	.7616	.8699	.8732
.366	1.0068	.7580	.8677	.8710
.313	1.0080	.7451	.8597	.8632
.260	1.0092	.7244	.8472	.8509
.208	1.0115	.6866	.8239	.8280
.156	1.0138	.6372	.7928	.7974
-.156	1.0125	.6746	.8163	.8205
-.208	1.0111	.7192	.8434	.8472
-.260	1.0097	.7502	.8620	.8654
-.313	1.0086	.7700	.8737	.8769
-.366	1.0075	.7862	.8834	.8864
-.417	1.0072	.8075	.8954	.8981
-.469	1.0070	.8077	.8956	.8984
-.521	1.0066	.8077	.8958	.8985
-.573	1.0063	.8154	.9002	.9028
-.625	1.0064	.8193	.9023	.9049
-.677	1.0065	.8168	.9009	.9035
-.729	1.0062	.8481	.9181	.9203
-.781	1.0059	.8386	.9131	.9154
-.833	1.0061	.8455	.9167	.9189
-.885	1.0063	.8551	.9218	.9239
-.937	1.0067	.8680	.9286	.9306
-.989	1.0071	.8719	.9305	.9324
-1.042	1.0066	.8687	.9290	.9310
-1.094	1.0062	.8733	.9316	.9335
-1.146	1.0057	.8934	.9425	.9442
-1.198	1.0052	.9037	.9482	.9497

TABLE 15.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT)

(a) x/D = 5.00; y/D = 0.0; $\alpha = 10^\circ$;

p_∞ = 79 653.60 N/m^2 (1663.60 lb/ft^2);
q_∞ = 19 992.88 N/m^2 (417.56 lb/ft^2);
$p_{t,\infty}$ = 101 506.15 N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0107	.8662	.9258	.9302
1.146	1.0127	.8196	.8996	.9054
1.094	1.0148	.8006	.8882	.8945
1.042	1.0125	.7664	.8700	.8771
.989	1.0103	.7395	.8556	.8633
.937	1.0095	.7015	.8336	.8423
.885	1.0086	.6824	.8225	.8316
.833	1.0078	.6503	.8033	.8130
.781	1.0069	.6351	.7942	.8042
.729	1.0059	.6115	.7797	.7901
.677	1.0050	.5851	.7630	.7739
.625	1.0043	.5648	.7499	.7611
.573	1.0037	.5512	.7411	.7525
.521	1.0053	.5332	.7283	.7400
.469	1.0068	.5235	.7211	.7330
.417	1.0079	.4936	.6998	.7121
.366	1.0090	.4875	.6951	.7075
.313	1.0095	.4948	.7001	.7123
.260	1.0099	.5094	.7102	.7223
.208	1.0135	.4785	.6871	.6995
.156	1.0170	.4197	.6424	.6554
-.156	1.0293	.4659	.6733	.6860
-.208	1.0250	.5157	.7093	.7214
-.260	1.0202	.5618	.7420	.7535
-.313	1.0185	.5602	.7416	.7530
-.366	1.0168	.6106	.7750	.7855
-.417	1.0175	.6325	.7885	.7986
-.469	1.0182	.6474	.7974	.8073
-.521	1.0196	.6824	.8181	.8273
-.573	1.0209	.7218	.8409	.8492
-.625	1.0219	.7590	.8622	.8697
-.677	1.0219	.7930	.8813	.8880
-.729	1.0221	.8197	.8955	.9015
-.781	1.0232	.8330	.9023	.9079
-.833	1.0236	.8466	.9094	.9148
-.885	1.0239	.8695	.9215	.9262
-.937	1.0259	.8772	.9247	.9292
-.989	1.0279	.8801	.9253	.9298
-1.042	1.0245	.9037	.9392	.9429
-1.094	1.0211	.9240	.9513	.9543
-1.146	1.0213	.9269	.9527	.9556
-1.198	1.0215	.9313	.9548	.9577

(b) x/D = 6.00; y/D = 0.0; $\alpha = 10^\circ$;

p_∞ = 79 605.72 N/m^2 (1662.60 lb/ft^2);
q_∞ = 20 018.26 N/m^2 (418.09 lb/ft^2);
$p_{t,\infty}$ = 101 486.99 N/m^2 (2119.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0052	.8667	.9286	.9329
1.146	1.0053	.8374	.9127	.9178
1.094	1.0055	.8133	.8994	.9052
1.042	1.0056	.7814	.8815	.8882
.989	1.0057	.7634	.8712	.8784
.937	1.0049	.7353	.8554	.8632
.885	1.0040	.7097	.8408	.8491
.833	1.0047	.6832	.8246	.8336
.781	1.0054	.6724	.8178	.8270
.729	1.0029	.6557	.8086	.8181
.677	1.0004	.6478	.8047	.8144
.625	1.0020	.6407	.7996	.8095
.573	1.0035	.6036	.7756	.7861
.521	1.0040	.6155	.7829	.7933
.469	1.0045	.5939	.7689	.7796
.417	1.0056	.6005	.7727	.7834
.366	1.0068	.5968	.7699	.7806
.313	1.0089	.5819	.7594	.7704
.260	1.0111	.5673	.7491	.7603
.208	1.0148	.5530	.7382	.7497
.156	1.0185	.5075	.7059	.7181
-.156	1.0294	.5686	.7432	.7546
-.208	1.0243	.5833	.7546	.7657
-.260	1.0193	.6222	.7813	.7517
-.313	1.0163	.6375	.7920	.8021
-.366	1.0133	.6724	.8146	.8239
-.417	1.0137	.6730	.8148	.8241
-.469	1.0141	.6992	.8303	.8391
-.521	1.0144	.7312	.8491	.8571
-.573	1.0146	.7555	.8629	.8704
-.625	1.0157	.7819	.8774	.8842
-.677	1.0169	.7923	.8827	.8893
-.729	1.0170	.8076	.8911	.8973
-.781	1.0172	.8304	.9035	.9092
-.833	1.0184	.8477	.9124	.9175
-.885	1.0196	.8617	.9193	.9241
-.937	1.0215	.8769	.9265	.9309
-.989	1.0234	.8887	.9319	.9360
-1.042	1.0209	.8998	.9388	.9425
-1.094	1.0184	.9205	.9507	.9538
-1.146	1.0180	.9323	.9570	.9597
-1.198	1.0175	.9318	.9570	.9597

TABLE 15.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Continued

(c) x/D = 7.00; y/D = 0.0; $\alpha = 10^\circ$;
p_∞ = 79 615.29 N/m^2 (1662.80 lb/ft^2);
q_∞ = 20 029.75 N/m^2 (418.33 lb/ft^2);
$p_{t,\infty}$ = 101 510.94 N/m^2 (2120.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0053	.8458	.9172	.9222
1.146	1.0054	.8251	.9059	.9114
1.094	1.0056	.8228	.9046	.9101
1.042	1.0057	.7881	.8852	.8517
.989	1.0058	.7645	.8718	.8789
.937	1.0055	.7535	.8657	.8731
.885	1.0052	.2877	.5350	.5483
.833	1.0062	.7196	.8456	.8538
.781	1.0073	.7016	.8346	.8432
.729	1.0052	.7044	.8371	.8456
.677	1.0031	.6941	.8318	.8406
.625	1.0049	.6839	.8249	.8339
.573	1.0067	.6648	.8127	.8221
.521	1.0081	.6690	.8146	.8240
.469	1.0095	.6502	.8025	.8123
.417	1.0098	.6517	.8034	.8131
.366	1.0100	.6481	.8011	.8109
.313	1.0124	.6381	.7939	.8039
.260	1.0147	.6126	.7770	.7875
.208	1.0191	.6024	.7689	.7796
.156	1.0234	.5475	.7314	.7431
-.156	1.0296	.5933	.7591	.7701
-.208	1.0251	.6334	.7861	.7963
-.260	1.0205	.6657	.8077	.8173
-.313	1.0184	.6896	.8229	.8319
-.366	1.0163	.7123	.8372	.8457
-.417	1.0158	.7299	.8477	.8558
-.469	1.0153	.7277	.8466	.8548
-.521	1.0146	.7463	.8576	.8654
-.573	1.0138	.7554	.8632	.8707
-.625	1.0143	.7918	.8835	.8901
-.677	1.0147	.7827	.8783	.8851
-.729	1.0148	.8170	.8973	.9032
-.781	1.0149	.8367	.9079	.9133
-.833	1.0161	.8560	.9178	.9227
-.885	1.0173	.8668	.9231	.9277
-.937	1.0188	.8627	.9202	.9249
-.989	1.0203	.8739	.9255	.9300
-1.042	1.0189	.8957	.9376	.9414
-1.094	1.0174	.9145	.9481	.9513
-1.146	1.0159	.9221	.9527	.9557
-1.198	1.0144	.9323	.9587	.9613

(d) x/D = 8.39; y/D = 0.0; $\alpha = 10^\circ$;
p_∞ = 79 615.29 N/m^2 (1662.80 lb/ft^2);
q_∞ = 20 022.57 N/m^2 (418.18 lb/ft^2);
$p_{t,\infty}$ = 101 506.15 N/m^2 (2120.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0043	.8539	.9221	.9268
1.146	1.0063	.8350	.9109	.9161
1.094	1.0083	.8051	.8935	.8996
1.042	1.0085	.7945	.8876	.8940
.989	1.0087	.7971	.8890	.8953
.937	1.0077	.7773	.8783	.8851
.885	1.0067	.7662	.8724	.8795
.833	1.0075	.7492	.8624	.8699
.781	1.0082	.7516	.8634	.8709
.729	1.0079	.7354	.8542	.8620
.677	1.0076	.7321	.8524	.8603
.625	1.0078	.7261	.8488	.8569
.573	1.0080	.7231	.8470	.8551
.521	1.0087	.7140	.8413	.8497
.469	1.0095	.7107	.8391	.8475
.417	1.0115	.7062	.8356	.8442
.366	1.0134	.7088	.8363	.8448
.313	1.0162	.6906	.8244	.8334
.260	1.0189	.6686	.8101	.8196
.208	1.0238	.6153	.7752	.7858
.156	1.0287	.5780	.7496	.7608
-.156	1.0315	.6230	.7772	.7877
-.208	1.0286	.6680	.8059	.8155
-.260	1.0257	.6762	.8120	.8214
-.313	1.0228	.7090	.8326	.8413
-.366	1.0198	.7379	.8506	.8586
-.417	1.0178	.7304	.8471	.8553
-.469	1.0158	.7560	.8627	.8702
-.521	1.0156	.7682	.8697	.8769
-.573	1.0154	.7803	.8766	.8835
-.625	1.0155	.7906	.8824	.8890
-.677	1.0157	.7997	.8873	.8937
-.729	1.0154	.8220	.8997	.9055
-.781	1.0152	.8377	.9084	.9138
-.833	1.0161	.8439	.9114	.9166
-.885	1.0170	.8573	.9182	.9230
-.937	1.0178	.8685	.9237	.9283
-.989	1.0187	.8744	.9265	.9309
-1.042	1.0170	.8891	.9350	.9390
-1.094	1.0152	.8968	.9399	.9436
-1.146	1.0145	.9086	.9464	.9497
-1.198	1.0138	.9259	.9557	.9585

TABLE 15.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Continued

(e) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 10^\circ$;

$p_\infty = 79\ 620.08$ N/m^2 (1662.90 lb/ft^2);
$q_\infty = 19\ 967.50$ N/m^2 (417.03 lb/ft^2);
$p_{t,\infty} = 101\ 439.11$ N/m^2 (2118.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0068	.8452	.9163	.9212
1.146	1.0057	.8350	.9112	.9164
1.094	1.0046	.8285	.9081	.9135
1.042	1.0073	.8052	.8941	.9001
.989	1.0099	.7788	.8781	.8849
.937	1.0095	.7685	.8725	.8796
.885	1.0090	.7619	.8690	.8762
.833	1.0093	.7527	.8636	.8710
.781	1.0096	.7442	.8586	.8662
.729	1.0094	.7492	.8615	.8690
.677	1.0093	.7364	.8542	.8620
.625	1.0093	.7291	.8499	.8579
.573	1.0094	.7332	.8523	.8602
.521	1.0104	.7197	.8440	.8522
.469	1.0114	.7237	.8459	.8540
.417	1.0133	.7068	.8352	.8437
.366	1.0153	.7132	.8381	.8466
.313	1.0175	.6927	.8251	.8341
.260	1.0196	.6827	.8182	.8274
.208	1.0250	.6458	.7938	.8038
.156	1.0303	.5911	.7574	.7685
-.156	1.0277	.6326	.7846	.7949
-.208	1.0240	.6841	.8174	.8266
-.260	1.0203	.7207	.8404	.8488
-.313	1.0189	.7245	.8433	.8515
-.366	1.0175	.7448	.8556	.8633
-.417	1.0173	.7554	.8617	.8692
-.469	1.0171	.7683	.8691	.8763
-.521	1.0161	.7819	.8772	.8840
-.573	1.0151	.7991	.8872	.8936
-.625	1.0146	.8028	.8895	.8958
-.677	1.0141	.8098	.8936	.8997
-.729	1.0147	.8241	.9012	.9069
-.781	1.0154	.8333	.9059	.9114
-.833	1.0163	.8350	.9064	.9119
-.885	1.0171	.8522	.9153	.9203
-.937	1.0180	.8604	.9193	.9241
-.989	1.0189	.8574	.9173	.9222
-1.042	1.0172	.8705	.9251	.9296
-1.094	1.0154	.9045	.9438	.9473
-1.146	1.0141	.9095	.9470	.9503
-1.198	1.0128	.9236	.9550	.9578

(f) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 10^\circ$;

$p_\infty = 79\ 644.02$ N/m^2 (1663.40 lb/ft^2);
$q_\infty = 20\ 016.82$ N/m^2 (418.06 lb/ft^2);
$p_{t,\infty} = 101\ 520.51$ N/m^2 (2120.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0083	.8411	.9133	.9185
1.146	1.0090	.8201	.9015	.9072
1.094	1.0098	.8250	.9039	.9095
1.042	1.0109	.7993	.8892	.8955
.989	1.0119	.7844	.8805	.8872
.937	1.0107	.7796	.8783	.8851
.885	1.0095	.7749	.8761	.8830
.833	1.0095	.7659	.8710	.8782
.781	1.0096	.7618	.8686	.8759
.729	1.0100	.7601	.8675	.8748
.677	1.0104	.7541	.8639	.8714
.625	1.0109	.7506	.8617	.8692
.573	1.0115	.7510	.8617	.8692
.521	1.0125	.7454	.8580	.8657
.469	1.0137	.7251	.8458	.8539
.417	1.0152	.7265	.8460	.8541
.366	1.0166	.7208	.8421	.8504
.313	1.0185	.7170	.8391	.8475
.260	1.0204	.6954	.8255	.8345
.208	1.0255	.6587	.8014	.8112
.156	1.0307	.5995	.7626	.7736
-.156	1.0313	.6369	.7859	.7961
-.208	1.0272	.6864	.8174	.8267
-.260	1.0230	.7196	.8387	.8472
-.313	1.0207	.7513	.8580	.8656
-.366	1.0183	.7595	.8636	.8711
-.417	1.0176	.7667	.8680	.8753
-.469	1.0169	.7768	.8740	.8810
-.521	1.0165	.7803	.8762	.8831
-.573	1.0151	.7998	.8872	.8936
-.625	1.0156	.8003	.8877	.8941
-.677	1.0151	.8133	.8951	.9011
-.729	1.0150	.8230	.9005	.9062
-.781	1.0148	.8313	.9051	.9106
-.833	1.0149	.8503	.9153	.9203
-.885	1.0149	.8472	.9137	.9188
-.937	1.0168	.8454	.9118	.9170
-.989	1.0187	.8574	.9174	.9223
-1.042	1.0167	.8806	.9307	.9349
-1.094	1.0148	.8819	.9322	.9364
-1.146	1.0138	.9028	.9437	.9472
-1.198	1.0128	.9084	.9470	.9503

TABLE 15.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.60 AND A REYNOLDS NUMBER OF 10.40×10^6 PER METER (3.17×10^6 PER FOOT) - Concluded

(g) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 79\,653.60$ N/m^2 (1663.60 lb/ft^2);
$q_\infty = 19\,991.44$ N/m^2 (417.53 lb/ft^2);
$p_{t,\infty} = 101\,501.36$ N/m^2 (2119.90 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0090	.8448	.9150	.9201
1.146	1.0100	.8316	.9074	.9128
1.094	1.0110	.8217	.9015	.9072
1.042	1.0112	.8133	.8968	.9027
.989	1.0115	.8134	.8968	.9027
.937	1.0120	.7889	.8829	.8895
.885	1.0125	.7842	.8800	.8868
.833	1.0125	.7812	.8784	.8852
.781	1.0124	.7797	.8775	.8844
.729	1.0124	.7675	.8707	.8778
.677	1.0123	.7693	.8718	.8789
.625	1.0122	.7512	.8615	.8690
.573	1.0120	.7687	.8715	.8786
.521	1.0132	.7579	.8648	.8722
.469	1.0144	.7554	.8629	.8704
.417	1.0157	.7579	.8638	.8712
.366	1.0169	.7366	.8511	.8590
.313	1.0196	.7328	.8477	.8558
.260	1.0224	.7041	.8299	.8386
.208	1.0276	.6642	.8040	.8137
.156	1.0327	.6179	.7735	.7841
-.156	1.0306	.6658	.8038	.8135
-.208	1.0270	.7109	.8320	.8407
-.260	1.0234	.7382	.8493	.8574
-.313	1.0219	.7487	.8559	.8637
-.366	1.0204	.7617	.8640	.8714
-.417	1.0191	.7743	.8716	.8787
-.469	1.0178	.7828	.8770	.8838
-.521	1.0172	.7892	.8808	.8875
-.573	1.0166	.7956	.8846	.8911
-.625	1.0165	.8087	.8919	.8981
-.677	1.0163	.8194	.8979	.9038
-.729	1.0166	.8144	.8951	.9011
-.781	1.0169	.8207	.8984	.9042
-.833	1.0166	.8279	.9024	.9081
-.885	1.0164	.8357	.9068	.9122
-.937	1.0180	.8448	.9110	.9162
-.989	1.0195	.8539	.9152	.9202
-1.042	1.0168	.8737	.9270	.9314
-1.094	1.0141	.8757	.9293	.9335
-1.146	1.0138	.8840	.9337	.9378
-1.198	1.0136	.9046	.9447	.9481

TABLE 16.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT)

(a) $x/D = 5.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
p_∞ = 66 539.19 N/m^2 (1389.70 lb/ft^2);
q_∞ = 29 863.40 N/m^2 (623.71 lb/ft^2);
$p_{t,\infty}$ = 101 501.36 N/m^2 (2119.90 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0366	.8444	.9025	.9122
1.146	1.0400	.8182	.8870	.8979
1.094	1.0435	.7815	.8654	.8781
1.042	1.0365	.7494	.8503	.8640
.989	1.0296	.7057	.8279	.8431
.937	1.0284	.6730	.8090	.8253
.885	1.0271	.6260	.7807	.7986
.833	1.0259	.5930	.7603	.7792
.781	1.0247	.5544	.7356	.7556
.729	1.0218	.5144	.7095	.7304
.677	1.0183	.4669	.6770	.6988
.625	1.0178	.4367	.6550	.6774
.573	1.0167	.4077	.6332	.6560
.521	1.0192	.3952	.6227	.6456
.469	1.0216	.3878	.6161	.6390
.417	1.0223	.3653	.5978	.6209
.366	1.0230	.3568	.5906	.6137
.313	1.0239	.3149	.5546	.5778
.260	1.0247	.3100	.5500	.5732
.208	1.0286	.3195	.5573	.5805
.156	1.0324	.2849	.5253	.5484
-.156	1.0610	.3690	.5897	.6129
-.208	1.0545	.3934	.6108	.6338
-.260	1.0480	.4263	.6378	.6605
-.313	1.0437	.4712	.6719	.6939
-.366	1.0394	.5066	.6982	.7194
-.417	1.0413	.5360	.7175	.7381
-.469	1.0431	.5524	.7277	.7480
-.521	1.0455	.6116	.7648	.7835
-.573	1.0480	.6399	.7814	.7993
-.625	1.0497	.6931	.8126	.8287
-.677	1.0514	.7316	.8341	.8489
-.729	1.0560	.7788	.8588	.8719
-.781	1.0605	.7904	.8633	.8761
-.833	1.0626	.8325	.8851	.8962
-.885	1.0647	.8453	.8910	.9016
-.937	1.0687	.8602	.8972	.9073
-.989	1.0727	.8696	.9004	.9102
-1.042	1.0650	.8878	.9130	.9218
-1.094	1.0573	.9049	.9251	.9328
-1.146	1.0583	.9092	.9269	.9344
-1.198	1.0593	.9088	.9262	.9338

(b) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
p_∞ = 66 563.13 N/m^2 (1390.20 lb/ft^2);
q_∞ = 29 872.97 N/m^2 (623.91 lb/ft^2);
$p_{t,\infty}$ = 101 534.88 N/m^2 (2120.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0314	.8455	.9054	.9149
1.146	1.0302	.8296	.8974	.9075
1.094	1.0289	.7999	.8817	.8931
1.042	1.0277	.7688	.8649	.8776
.989	1.0265	.7198	.8373	.8519
.937	1.0238	.7029	.8286	.8437
.885	1.0211	.6839	.8184	.8342
.833	1.0220	.6492	.7970	.8141
.781	1.0229	.6102	.7724	.7907
.729	1.0176	.5989	.7672	.7858
.677	1.0123	.5855	.7605	.7794
.625	1.0148	.5601	.7430	.7626
.573	1.0172	.5337	.7244	.7448
.521	1.0183	.5063	.7051	.7262
.469	1.0194	.4986	.6993	.7206
.417	1.0200	.4843	.6891	.7106
.366	1.0207	.4938	.6955	.7169
.313	1.0228	.4788	.6842	.7059
.260	1.0249	.4852	.6880	.7096
.208	1.0311	.4601	.6680	.6901
.156	1.0372	.4202	.6365	.6592
-.156	1.0603	.4678	.6642	.6864
-.208	1.0515	.4999	.6895	.7110
-.260	1.0428	.5323	.7144	.7352
-.313	1.0404	.5587	.7328	.7529
-.366	1.0381	.5920	.7551	.7743
-.417	1.0390	.5997	.7597	.7786
-.469	1.0399	.6431	.7864	.8040
-.521	1.0403	.6625	.7980	.8150
-.573	1.0407	.6990	.8196	.8353
-.625	1.0436	.7401	.8421	.8564
-.677	1.0465	.7308	.8356	.8503
-.729	1.0482	.7762	.8605	.8735
-.781	1.0500	.8002	.8730	.8850
-.833	1.0531	.8128	.8785	.8901
-.885	1.0563	.8386	.8910	.9016
-.937	1.0599	.8515	.8963	.9065
-.989	1.0636	.8554	.8968	.9070
-1.042	1.0591	.8729	.9079	.9171
-1.094	1.0546	.8868	.9170	.9254
-1.146	1.0538	.8980	.9231	.9310
-1.198	1.0530	.9071	.9282	.9356

TABLE 16.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30 × 10^6 PER METER (3.75 × 10^6 PER FOOT) - Continued

(c) x/D = 7.00; y/D = 0.0; α = 10°;

p_∞ = 66 591.86 N/m^2 (1390.80 lb/ft^2);
q_∞ = 29 819.35 N/m^2 (622.79 lb/ft^2);
$p_{t,\infty}$ = 101 486.99 N/m^2 (2119.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0223	.8302	.9012	.9109
1.146	1.0227	.8251	.8982	.9082
1.094	1.0232	.8063	.8877	.8986
1.042	1.0237	.7701	.8673	.8798
.989	1.0241	.7457	.8533	.8668
.937	1.0225	.7249	.8420	.8562
.885	1.0210	.4863	.6902	.7116
.833	1.0219	.6681	.8086	.8249
.781	1.0229	.6555	.8006	.8174
.729	1.0182	.6464	.7967	.8138
.677	1.0135	.6237	.7844	.8021
.625	1.0161	.6113	.7757	.7938
.573	1.0187	.6013	.7683	.7868
.521	1.0190	.6037	.7697	.7882
.469	1.0192	.5960	.7647	.7833
.417	1.0213	.5744	.7499	.7693
.366	1.0233	.5651	.7431	.7628
.313	1.0267	.5477	.7304	.7505
.260	1.0302	.5417	.7251	.7454
.208	1.0372	.5110	.7019	.7230
.156	1.0442	.4742	.6739	.6958
-.155	1.0640	.5301	.7058	.7268
-.208	1.0549	.5628	.7304	.7506
-.260	1.0457	.6011	.7582	.7772
-.313	1.0416	.6324	.7792	.7972
-.366	1.0374	.6428	.7871	.8047
-.417	1.0374	.6607	.7981	.8150
-.469	1.0373	.6842	.8122	.8283
-.521	1.0372	.6997	.8214	.8370
-.573	1.0370	.7254	.8364	.8510
-.625	1.0396	.7368	.8419	.8561
-.677	1.0422	.7646	.8566	.8698
-.729	1.0432	.7946	.8727	.8848
-.781	1.0443	.7982	.8743	.8862
-.833	1.0468	.8235	.8869	.8979
-.885	1.0493	.8394	.8944	.9047
-.937	1.0520	.8480	.8978	.9079
-.989	1.0547	.8547	.9002	.9100
-1.042	1.0513	.8775	.9136	.9223
-1.094	1.0479	.8927	.9230	.9308
-1.146	1.0467	.9036	.9292	.9365
-1.198	1.0454	.9102	.9331	.9401

(d) x/D = 8.39; y/D = 0.0; α = 10°;

p_∞ = 66 620.59 N/m^2 (1391.40 lb/ft^2);
q_∞ = 29 815.52 N/m^2 (622.71 lb/ft^2);
$p_{t,\infty}$ = 101 510.94 N/m^2 (2120.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0210	.8377	.9058	.9152
1.146	1.0229	.8144	.8923	.9028
1.094	1.0248	.8003	.8837	.8949
1.042	1.0256	.7762	.8700	.8822
.989	1.0264	.7641	.8628	.8756
.937	1.0236	.7442	.8527	.8662
.885	1.0208	.7336	.8477	.8615
.833	1.0215	.7169	.8378	.8523
.781	1.0222	.6972	.8259	.8412
.729	1.0210	.6893	.8217	.8372
.677	1.0198	.6806	.8169	.8328
.625	1.0204	.6665	.8082	.8246
.573	1.0210	.6529	.7997	.8166
.521	1.0226	.6544	.7999	.8168
.469	1.0243	.6531	.7985	.8154
.417	1.0270	.6297	.7831	.8008
.366	1.0297	.6262	.7798	.7977
.313	1.0339	.6270	.7787	.7967
.260	1.0382	.6276	.7775	.7955
.208	1.0455	.5847	.7478	.7672
.156	1.0528	.5339	.7121	.7329
-.156	1.0683	.5704	.7307	.7508
-.208	1.0621	.6095	.7575	.7765
-.260	1.0559	.6321	.7737	.7919
-.313	1.0497	.6628	.7947	.8118
-.366	1.0435	.6735	.8034	.8200
-.417	1.0410	.6981	.8189	.8346
-.469	1.0386	.7082	.8257	.8410
-.521	1.0379	.7279	.8374	.8520
-.573	1.0373	.7480	.8492	.8629
-.625	1.0378	.7606	.8561	.8694
-.677	1.0383	.7654	.8586	.8717
-.729	1.0389	.7908	.8725	.8845
-.781	1.0394	.7999	.8772	.8889
-.833	1.0414	.8067	.8801	.8916
-.885	1.0433	.8299	.8919	.9024
-.937	1.0459	.8359	.8940	.9044
-.989	1.0484	.8431	.8968	.9069
-1.042	1.0447	.8664	.9107	.9196
-1.094	1.0411	.8854	.9222	.9301
-1.146	1.0389	.8928	.9270	.9345
-1.198	1.0367	.9052	.9344	.9412

TABLE 16.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Continued

(e) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
p_∞ = 66 625.38 N/m^2 (1391.50 lb/ft^2);
q_∞ = 29 777.21 N/m^2 (621.91 lb/ft^2);
$p_{t,\infty}$ = 101 463.05 N/m^2 (2119.10 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0234	.8415	.9068	.9160
1.146	1.0211	.8258	.8993	.9092
1.094	1.0188	.8130	.8933	.9037
1.042	1.0243	.7757	.8702	.8824
.989	1.0297	.7646	.8617	.8746
.937	1.0276	.7478	.8531	.8665
.885	1.0255	.7399	.8494	.8632
.833	1.0254	.7286	.8429	.8571
.781	1.0254	.7099	.8321	.8469
.729	1.0250	.6962	.8241	.8395
.677	1.0247	.6879	.8193	.8350
.625	1.0253	.6777	.8130	.8291
.573	1.0258	.6763	.8120	.8281
.521	1.0267	.6777	.8125	.8286
.469	1.0276	.6574	.7998	.8167
.417	1.0308	.6457	.7915	.8088
.366	1.0340	.6577	.7975	.8145
.313	1.0380	.6451	.7883	.8058
.260	1.0420	.6292	.7771	.7551
.208	1.0502	.5982	.7547	.7738
.156	1.0585	.5466	.7186	.7392
-.156	1.0630	.5920	.7463	.7657
-.208	1.0558	.6392	.7780	.7960
-.260	1.0487	.6655	.7966	.8136
-.313	1.0457	.6822	.8077	.8241
-.366	1.0427	.6954	.8167	.8325
-.417	1.0406	.7016	.8211	.8367
-.469	1.0385	.7257	.8360	.8506
-.521	1.0382	.7421	.8454	.8594
-.573	1.0379	.7372	.8428	.8570
-.625	1.0379	.7662	.8592	.8722
-.677	1.0380	.7694	.8610	.8739
-.729	1.0396	.7943	.8741	.8860
-.781	1.0412	.8099	.8819	.8932
-.833	1.0420	.8128	.8832	.8544
-.885	1.0428	.8210	.8873	.8982
-.937	1.0456	.8290	.8904	.9010
-.989	1.0483	.8397	.8950	.9053
-1.042	1.0442	.8603	.9077	.9169
-1.094	1.0401	.8829	.9213	.9293
-1.146	1.0383	.8898	.9257	.9333
-1.198	1.0365	.9008	.9323	.9393

(f) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
p_∞ = 66 716.35 N/m^2 (1393.40 lb/ft^2);
q_∞ = 29 757.58 N/m^2 (621.50 lb/ft^2);
$p_{t,\infty}$ = 101 520.51 N/m^2 (2120.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0217	.8286	.9006	.9103
1.146	1.0250	.8206	.8947	.9050
1.094	1.0283	.8081	.8865	.8574
1.042	1.0293	.7894	.8757	.8875
.989	1.0303	.7606	.8592	.8722
.937	1.0291	.7635	.8613	.8742
.885	1.0279	.7519	.8552	.8685
.833	1.0270	.7398	.8487	.8625
.781	1.0260	.7235	.8397	.8541
.729	1.0255	.7191	.8374	.8519
.677	1.0250	.7084	.8313	.8462
.625	1.0252	.7044	.8289	.8440
.573	1.0254	.7055	.8295	.8445
.521	1.0265	.7035	.8279	.8430
.469	1.0277	.7009	.8259	.8411
.417	1.0309	.6922	.8194	.8351
.366	1.0342	.6789	.8102	.8264
.313	1.0386	.6697	.8030	.8196
.260	1.0429	.6630	.7973	.8143
.208	1.0517	.6220	.7691	.7875
.156	1.0604	.5540	.7228	.7431
-.156	1.0627	.6111	.7583	.7772
-.208	1.0555	.6437	.7809	.7987
-.260	1.0484	.6885	.8104	.8265
-.313	1.0439	.6950	.8159	.8318
-.366	1.0394	.7224	.8337	.8484
-.417	1.0390	.7305	.8385	.8530
-.469	1.0385	.7350	.8413	.8555
-.521	1.0370	.7513	.8512	.8647
-.573	1.0354	.7591	.8562	.8695
-.625	1.0363	.7687	.8613	.8741
-.677	1.0373	.7746	.8642	.8768
-.729	1.0386	.7910	.8727	.8847
-.781	1.0400	.7978	.8759	.8876
-.833	1.0397	.8096	.8824	.8937
-.885	1.0395	.8195	.8879	.8587
-.937	1.0428	.8366	.8957	.9059
-.989	1.0461	.8294	.8904	.9011
-1.042	1.0424	.8531	.9046	.9141
-1.094	1.0387	.8660	.9131	.9218
-1.146	1.0366	.8929	.9281	.9355
-1.198	1.0345	.9045	.9350	.9417

TABLE 16.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 0.80 AND A REYNOLDS NUMBER OF 12.30×10^6 PER METER (3.75×10^6 PER FOOT) - Concluded

(g) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 66\ 591.86\ N/m^2$ ($1390.80\ lb/ft^2$);
$q_\infty = 29\ 810.25\ N/m^2$ ($622.60\ lb/ft^2$);
$p_{t,\infty} = 101\ 477.42\ N/m^2$ ($2119.40\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0259	.8406	.9052	.9146
1.146	1.0290	.8280	.8970	.9071
1.094	1.0322	.8141	.8881	.8990
1.042	1.0330	.8092	.8851	.8961
.989	1.0338	.7802	.8687	.8811
.937	1.0322	.7732	.8655	.8781
.885	1.0306	.7690	.8638	.8765
.833	1.0302	.7627	.8605	.8734
.781	1.0298	.7483	.8524	.8660
.729	1.0303	.7393	.8471	.8610
.677	1.0308	.7370	.8456	.8596
.625	1.0305	.7289	.8411	.8554
.573	1.0302	.7210	.8366	.8512
.521	1.0314	.7064	.8276	.8428
.469	1.0327	.7135	.8312	.8461
.417	1.0354	.6929	.8180	.8338
.366	1.0381	.6948	.8181	.8339
.313	1.0434	.6808	.8077	.8241
.260	1.0488	.6591	.7927	.8100
.208	1.0583	.6190	.7648	.7834
.156	1.0678	.5711	.7314	.7515
-.156	1.0671	.6096	.7558	.7749
-.208	1.0593	.6566	.7873	.8048
-.260	1.0515	.6889	.8094	.8257
-.313	1.0480	.7130	.8248	.8402
-.366	1.0446	.7253	.8333	.8481
-.417	1.0425	.7363	.8404	.8547
-.469	1.0404	.7495	.8487	.8625
-.521	1.0401	.7484	.8483	.8621
-.573	1.0397	.7621	.8561	.8694
-.625	1.0403	.7620	.8558	.8691
-.677	1.0408	.7814	.8664	.8790
-.729	1.0408	.7780	.8646	.8773
-.781	1.0407	.7905	.8715	.8837
-.833	1.0414	.8140	.8841	.8953
-.885	1.0420	.8218	.8881	.8989
-.937	1.0441	.8207	.8866	.8976
-.989	1.0461	.8317	.8917	.9022
-1.042	1.0420	.8527	.9046	.9140
-1.094	1.0380	.8596	.9100	.9190
-1.146	1.0368	.8746	.9185	.9267
-1.198	1.0357	.8782	.9208	.9289

TABLE 17.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT)

(a) $x/D = 5.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 26\ 808.16\ N/m^2\ (559.90\ lb/ft^2)$;
$q_\infty = 18\ 787.73\ N/m^2\ (392.39\ lb/ft^2)$;
$p_{t,\infty} = 50\ 781.80\ N/m^2\ (1060.60\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0971	.8200	.8645	.8833
1.146	1.1027	.7763	.8391	.8606
1.094	1.1083	.7412	.8178	.8414
1.042	1.0948	.7045	.8022	.8271
.989	1.0813	.6709	.7877	.8139
.937	1.0804	.6301	.7637	.7917
.885	1.0796	.5813	.7338	.7638
.833	1.0787	.5396	.7072	.7387
.781	1.0778	.4993	.6806	.7133
.729	1.0682	.4654	.6601	.6935
.677	1.0585	.4498	.6519	.6856
.625	1.0561	.4256	.6348	.6690
.573	1.0537	.3936	.6111	.6458
.521	1.0555	.3869	.6055	.6402
.469	1.0572	.3709	.5923	.6273
.417	1.0584	.3642	.5866	.6216
.366	1.0596	.3536	.5777	.6128
.313	1.0631	.3427	.5678	.6029
.260	1.0567	.3550	.5769	.6120
.208	1.0755	.3254	.5500	.5851
.156	1.0844	.2890	.5162	.5511
-.156	1.1605	.4013	.5881	.6230
-.208	1.1525	.4549	.6282	.6626
-.260	1.1446	.5139	.6701	.7032
-.313	1.1451	.5770	.7099	.7412
-.366	1.1456	.6392	.7470	.7761
-.417	1.1519	.6884	.7731	.8004
-.469	1.1582	.7243	.7908	.8167
-.521	1.1644	.7636	.8098	.8341
-.573	1.1707	.7969	.8251	.8480
-.625	1.1751	.8209	.8358	.8577
-.677	1.1794	.8322	.8400	.8614
-.729	1.1840	.8374	.8410	.8623
-.781	1.1886	.8405	.8409	.8622
-.833	1.1901	.8431	.8417	.8629
-.885	1.1916	.8429	.8410	.8623
-.937	1.1931	.8420	.8401	.8615
-.989	1.1946	.8407	.8389	.8604
-1.042	1.1890	.8467	.8438	.8649
-1.094	1.1834	.8512	.8481	.8687
-1.146	1.1753	.8586	.8547	.8746
-1.198	1.1672	.8659	.8613	.8805

(b) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 53\ 683.35\ N/m^2\ (1121.20\ lb/ft^2)$;
$q_\infty = 37\ 513.22\ N/m^2\ (783.48\ lb/ft^2)$;
$p_{t,\infty} = 101\ 515.72\ N/m^2\ (2120.20\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0946	.7932	.8512	.8714
1.146	1.0916	.7648	.8370	.8587
1.094	1.0887	.7415	.8253	.8481
1.042	1.0857	.7049	.8057	.8303
.989	1.0827	.6650	.7837	.8101
.937	1.0802	.6318	.7648	.7927
.885	1.0776	.6094	.7520	.7808
.833	1.0772	.5816	.7348	.7647
.781	1.0768	.5573	.7194	.7501
.729	1.0699	.5438	.7129	.7440
.677	1.0631	.5269	.7040	.7356
.625	1.0668	.5018	.6858	.7182
.573	1.0705	.5073	.6884	.7207
.521	1.0715	.4772	.6674	.7005
.469	1.0725	.4705	.6624	.6957
.417	1.0755	.4755	.6649	.6981
.366	1.0786	.4712	.6610	.6943
.313	1.0821	.4529	.6469	.6807
.260	1.0856	.4580	.6495	.6832
.208	1.0974	.4401	.6333	.6674
.156	1.1092	.3755	.5818	.6168
-.156	1.1753	.4544	.6218	.6562
-.208	1.1649	.5072	.6598	.6932
-.260	1.1545	.5562	.6941	.7261
-.313	1.1529	.6072	.7257	.7561
-.366	1.1513	.6376	.7442	.7735
-.417	1.1556	.6761	.7649	.7927
-.469	1.1599	.7055	.7799	.8067
-.521	1.1632	.7372	.7961	.8215
-.573	1.1665	.7745	.8148	.8386
-.625	1.1707	.7892	.8211	.8443
-.677	1.1748	.8088	.8297	.8521
-.729	1.1785	.8205	.8344	.8563
-.781	1.1823	.8324	.8391	.8605
-.833	1.1841	.8328	.8386	.8601
-.885	1.1858	.8416	.8424	.8636
-.937	1.1890	.8410	.8411	.8623
-.989	1.1921	.8367	.8378	.8594
-1.042	1.1859	.8452	.8442	.8651
-1.094	1.1797	.8504	.8490	.8695
-1.146	1.1734	.8562	.8542	.8741
-1.198	1.1671	.8615	.8591	.8785

TABLE 17.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75 × 10^6 PER METER (4.19 × 10^6 PER FOOT) - Continued

(c) x/D = 7.00; y/D = 0.0; α = 10°;

p_∞ = 53 716.86 N/m² (1121.90 lb/ft²);
q_∞ = 37 482.10 N/m² (782.83 lb/ft²);
$p_{t,\infty}$ = 101 491.78 N/m² (2119.70 lb/ft²)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0849	.7812	.8486	.8690
1.146	1.0841	.7570	.8357	.8574
1.094	1.0833	.7323	.8222	.8453
1.042	1.0825	.7077	.8086	.8329
.989	1.0817	.6818	.7939	.8195
.937	1.0803	.6556	.7790	.8058
.885	1.0788	.5326	.7026	.7342
.833	1.0799	.6062	.7492	.7781
.781	1.0810	.5968	.7430	.7724
.729	1.0745	.5780	.7335	.7634
.677	1.0680	.5729	.7324	.7624
.625	1.0731	.5766	.7330	.7630
.573	1.0783	.5494	.7138	.7448
.521	1.0798	.5373	.7054	.7368
.469	1.0814	.5409	.7072	.7386
.417	1.0853	.5451	.7087	.7400
.366	1.0893	.5402	.7042	.7357
.313	1.0943	.5363	.7000	.7317
.260	1.0993	.5263	.6919	.7240
.208	1.1127	.4786	.6558	.6893
.156	1.1262	.4316	.6190	.6534
-.156	1.1815	.4982	.6494	.6830
-.208	1.1691	.5585	.6912	.7233
-.260	1.1567	.5896	.7139	.7449
-.313	1.1534	.6276	.7377	.7673
-.365	1.1501	.6614	.7583	.7866
-.417	1.1527	.6704	.7626	.7906
-.469	1.1553	.7070	.7823	.8088
-.521	1.1580	.7329	.7956	.8210
-.573	1.1606	.7602	.8093	.8336
-.625	1.1637	.7855	.8216	.8447
-.677	1.1669	.7984	.8272	.8498
-.729	1.1705	.8113	.8325	.8546
-.781	1.1741	.8227	.8371	.8587
-.833	1.1741	.8317	.8416	.8628
-.885	1.1740	.8425	.8471	.8677
-.937	1.1784	.8455	.8471	.8677
-.989	1.1828	.8425	.8440	.8649
-1.042	1.1767	.8514	.8506	.8709
-1.094	1.1706	.8577	.8560	.8756
-1.146	1.1645	.8640	.8614	.8805
-1.198	1.1583	.8711	.8672	.8856

(d) x/D = 8.39; y/D = 0.0; α = 10°;

p_∞ = 53 697.71 N/m² (1121.50 lb/ft²);
q_∞ = 37 470.61 N/m² (782.59 lb/ft²);
$p_{t,\infty}$ = 101 458.27 N/m² (2119.00 lb/ft²)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0774	.7813	.8515	.8717
1.146	1.0794	.7624	.8404	.8617
1.094	1.0813	.7475	.8315	.8537
1.042	1.0828	.7281	.8200	.8433
.989	1.0843	.6993	.8031	.8279
.937	1.0832	.6922	.7994	.8245
.885	1.0821	.6714	.7877	.8138
.833	1.0811	.6502	.7755	.8026
.781	1.0801	.6494	.7754	.8024
.729	1.0778	.6483	.7755	.8026
.677	1.0756	.6462	.7751	.8022
.625	1.0778	.6229	.7602	.7884
.573	1.0801	.6113	.7523	.7810
.521	1.0823	.6140	.7532	.7818
.469	1.0846	.6106	.7503	.7792
.417	1.0912	.6183	.7528	.7814
.366	1.0979	.6077	.7440	.7732
.313	1.1056	.5893	.7301	.7602
.260	1.1133	.5693	.7151	.7461
.208	1.1285	.5333	.6874	.7197
.156	1.1437	.4666	.6388	.6727
-.156	1.1843	.5402	.6754	.7081
-.208	1.1768	.5795	.7017	.7333
-.260	1.1693	.6038	.7186	.7493
-.313	1.1618	.6474	.7465	.7756
-.365	1.1543	.6737	.7639	.7918
-.417	1.1513	.6889	.7735	.8007
-.469	1.1482	.7195	.7916	.8174
-.521	1.1496	.7359	.8001	.8251
-.573	1.1511	.7568	.8108	.8350
-.625	1.1530	.7713	.8179	.8414
-.677	1.1549	.7905	.8273	.8499
-.729	1.1592	.8061	.8339	.8558
-.781	1.1636	.8186	.8387	.8602
-.833	1.1648	.8284	.8433	.8643
-.885	1.1659	.8365	.8470	.8676
-.937	1.1709	.8388	.8464	.8671
-.989	1.1758	.8400	.8452	.8660
-1.042	1.1684	.8564	.8561	.8758
-1.094	1.1610	.8657	.8635	.8824
-1.146	1.1541	.8726	.8695	.8877
-1.198	1.1473	.8802	.8759	.8934

TABLE 17.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT) - Continued

(e) $x/D = 9.00$; $y/D = 0.0$; $\alpha = 10^{\circ}$;

$p_\infty = 53\ 736.01$ N/m^2 (1122.30 lb/ft^2);
$q_\infty = 37\ 438.53$ N/m^2 (781.92 lb/ft^2);
$p_{t,\infty} = 101\ 439.11$ N/m^2 (2118.60 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0804	.7882	.8541	.8740
1.146	1.0828	.7674	.8419	.8630
1.094	1.0853	.7517	.8322	.8543
1.042	1.0872	.7168	.8120	.8359
.989	1.0892	.7103	.8075	.8319
.937	1.0871	.6958	.8000	.8251
.885	1.0850	.6851	.7946	.8201
.833	1.0850	.6723	.7871	.8132
.781	1.0851	.6605	.7802	.8069
.729	1.0845	.6564	.7780	.8048
.677	1.0839	.6423	.7698	.7972
.625	1.0851	.6358	.7654	.7932
.573	1.0864	.6235	.7576	.7859
.521	1.0876	.6300	.7611	.7891
.469	1.0888	.6289	.7600	.7881
.417	1.0936	.6227	.7546	.7831
.366	1.0983	.6291	.7568	.7852
.313	1.1072	.6095	.7419	.7713
.260	1.1161	.5888	.7263	.7566
.208	1.1311	.5519	.6985	.7303
.156	1.1462	.4885	.6529	.6864
−.156	1.1767	.5573	.6882	.7204
−.208	1.1658	.6036	.7195	.7502
−.260	1.1549	.6368	.7426	.7719
−.313	1.1508	.6581	.7562	.7846
−.366	1.1467	.6827	.7716	.7989
−.417	1.1462	.6967	.7797	.8064
−.469	1.1456	.7181	.7917	.8174
−.521	1.1469	.7396	.8030	.8278
−.573	1.1483	.7573	.8121	.8361
−.625	1.1507	.7717	.8189	.8423
−.677	1.1532	.7858	.8255	.8482
−.729	1.1577	.7990	.8307	.8530
−.781	1.1622	.8111	.8354	.8572
−.833	1.1632	.8236	.8414	.8626
−.885	1.1643	.8314	.8450	.8658
−.937	1.1689	.8384	.8469	.8675
−.989	1.1736	.8396	.8458	.8666
−1.042	1.1655	.8517	.8548	.8746
−1.094	1.1574	.8654	.8647	.8834
−1.146	1.1519	.8710	.8695	.8877
−1.198	1.1465	.8783	.8753	.8928

(f) $x/D = 10.00$; $y/D = 0.0$; $\alpha = 10^{\circ}$;

$p_\infty = 53\ 726.44$ N/m^2 (1122.10 lb/ft^2);
$q_\infty = 37\ 462.47$ N/m^2 (782.42 lb/ft^2);
$p_{t,\infty} = 101\ 472.63$ N/m^2 (2119.30 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0857	.7987	.8577	.8772
1.146	1.0885	.7797	.8464	.8670
1.094	1.0914	.7578	.8333	.8553
1.042	1.0934	.7355	.8202	.8434
.989	1.0955	.7178	.8095	.8337
.937	1.0940	.7012	.8006	.8256
.885	1.0926	.6875	.7933	.8189
.833	1.0913	.6735	.7856	.8118
.781	1.0901	.6768	.7880	.8140
.729	1.0900	.6659	.7816	.8082
.677	1.0899	.6604	.7784	.8052
.625	1.0909	.6564	.7757	.8027
.573	1.0920	.6435	.7677	.7953
.521	1.0934	.6560	.7746	.8017
.469	1.0948	.6604	.7767	.8036
.417	1.0997	.6396	.7626	.7906
.366	1.1047	.6342	.7577	.7860
.313	1.1130	.6286	.7515	.7803
.260	1.1214	.6140	.7399	.7694
.208	1.1367	.5716	.7091	.7403
.156	1.1520	.4976	.6572	.6906
−.156	1.1767	.5610	.6905	.7226
−.208	1.1661	.6055	.7206	.7512
−.260	1.1555	.6508	.7505	.7793
−.313	1.1513	.6635	.7592	.7874
−.366	1.1471	.6925	.7770	.8039
−.417	1.1465	.7097	.7868	.8129
−.469	1.1459	.7227	.7941	.8197
−.521	1.1457	.7403	.8038	.8285
−.573	1.1456	.7551	.8119	.8359
−.625	1.1487	.7649	.8160	.8396
−.677	1.1519	.7819	.8239	.8468
−.729	1.1542	.8019	.8335	.8555
−.781	1.1566	.8073	.8355	.8572
−.833	1.1572	.8190	.8413	.8625
−.885	1.1578	.8307	.8470	.8676
−.937	1.1635	.8394	.8494	.8697
−.989	1.1692	.8405	.8479	.8684
−1.042	1.1622	.8527	.8566	.8762
−1.094	1.1552	.8640	.8648	.8835
−1.146	1.1483	.8719	.8714	.8893
−1.198	1.1414	.8827	.8794	.8965

TABLE 17.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.00 AND A REYNOLDS NUMBER OF 13.75×10^6 PER METER (4.19×10^6 PER FOOT) - Concluded

(g) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 10^o$;
$p_\infty = 53\ 726.44\ N/m^2\ (1122.10\ lb/ft^2)$;
$q_\infty = 37\ 452.90\ N/m^2\ (782.22\ lb/ft^2)$;
$p_{t,\infty} = 101\ 453.48\ N/m^2\ (2118.90\ lb/ft^2)$

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.0886	.7924	.8532	.8731
1.146	1.0921	.7832	.8469	.8675
1.094	1.0955	.7698	.8382	.8597
1.042	1.0986	.7481	.8252	.8479
.989	1.1017	.7252	.8113	.8354
.937	1.0995	.7205	.8095	.8337
.885	1.0973	.7112	.8051	.8297
.833	1.0963	.7005	.7993	.8244
.781	1.0954	.6928	.7953	.8207
.729	1.0947	.6937	.7961	.8214
.677	1.0939	.6734	.7846	.8109
.625	1.0964	.6712	.7824	.8089
.573	1.0989	.6658	.7784	.8052
.521	1.0995	.6674	.7791	.8058
.469	1.1001	.6662	.7782	.8050
.417	1.1055	.6477	.7654	.7932
.366	1.1109	.6358	.7565	.7849
.313	1.1200	.6327	.7516	.7803
.260	1.1291	.5951	.7260	.7563
.208	1.1415	.5731	.7085	.7398
.156	1.1540	.5179	.6699	.7029
-.156	1.1765	.5688	.6953	.7272
-.208	1.1646	.6187	.7289	.7590
-.260	1.1528	.6460	.7486	.7775
-.313	1.1489	.6628	.7596	.7877
-.366	1.1451	.6912	.7769	.8038
-.417	1.1442	.7059	.7855	.8117
-.469	1.1433	.7210	.7942	.8197
-.521	1.1451	.7353	.8013	.8263
-.573	1.1469	.7428	.8048	.8294
-.625	1.1468	.7608	.8145	.8383
-.677	1.1468	.7777	.8235	.8465
-.729	1.1505	.7877	.8274	.8500
-.781	1.1542	.7848	.8246	.8474
-.833	1.1551	.8054	.8350	.8568
-.885	1.1560	.8089	.8365	.8582
-.937	1.1603	.8224	.8419	.8630
-.989	1.1645	.8329	.8457	.8664
-1.042	1.1582	.8415	.8524	.8724
-1.094	1.1518	.8574	.8628	.8817
-1.146	1.1448	.8690	.8713	.8892
-1.198	1.1378	.8778	.8784	.8955

TABLE 18.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.83×10^6 PER METER (4.22×10^6 PER FOOT)

(a) $x/D = 5.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 20\ 952.40\ \text{N/m}^2$ ($437.60\ \text{lb/ft}^2$);
$q_\infty = 21\ 080.24\ \text{N/m}^2$ ($440.27\ \text{lb/ft}^2$);
$p_{t,\infty} = 50\ 733.92\ \text{N/m}^2$ ($1059.60\ \text{lb/ft}^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1335	.8854	.8838	.9062
1.146	1.1515	.8525	.8604	.8865
1.094	1.1695	.8168	.8357	.8653
1.042	1.1652	.7757	.8159	.8482
.989	1.1609	.7266	.7912	.8264
.937	1.1563	.6870	.7708	.8083
.885	1.1513	.6323	.7409	.7813
.833	1.1472	.5936	.7193	.7615
.781	1.1427	.5527	.6955	.7394
.729	1.1276	.5233	.6813	.7261
.677	1.1126	.5039	.6730	.7183
.625	1.1117	.4788	.6563	.7024
.573	1.1109	.4593	.6500	.6964
.521	1.1143	.4657	.6464	.6930
.469	1.1177	.4636	.6440	.6907
.417	1.1277	.4567	.6433	.6900
.366	1.1377	.4709	.6433	.6901
.313	1.1542	.4658	.6353	.6823
.260	1.1705	.4614	.6278	.6751
.208	1.1973	.4236	.5948	.6430
.156	1.2240	.3369	.5247	.5731
-.156	1.3909	.5256	.6148	.6625
-.208	1.3863	.6230	.6702	.7157
-.260	1.3828	.6977	.7103	.7532
-.313	1.3853	.7531	.7373	.7780
-.366	1.3878	.7859	.7525	.7919
-.417	1.3936	.7998	.7576	.7964
-.469	1.3995	.8072	.7595	.7981
-.521	1.4060	.8078	.7580	.7967
-.573	1.4125	.8056	.7552	.7943
-.625	1.4158	.8042	.7537	.7929
-.677	1.4190	.8014	.7515	.7909
-.729	1.4220	.8003	.7502	.7897
-.781	1.4250	.7983	.7484	.7881
-.833	1.4251	.7989	.7487	.7884
-.885	1.4252	.7999	.7491	.7888
-.937	1.4244	.7994	.7491	.7888
-.989	1.4236	.8011	.7502	.7897
-1.042	1.4195	.8032	.7522	.7916
-1.094	1.4155	.8046	.7540	.7931
-1.146	1.3752	.8278	.7759	.8128
-1.198	1.3349	.8517	.7988	.8331

(b) $x/D = 6.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 41\ 876.07\ \text{N/m}^2$ ($874.60\ \text{lb/ft}^2$);
$q_\infty = 42\ 211.24\ \text{N/m}^2$ ($881.60\ \text{lb/ft}^2$);
$p_{t,\infty} = 101\ 549.24\ \text{N/m}^2$ ($2120.90\ \text{lb/ft}^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1751	.8459	.8485	.8764
1.146	1.1768	.8212	.8354	.8651
1.094	1.1785	.7962	.8220	.8535
1.042	1.1802	.7497	.7970	.8317
.989	1.1819	.7038	.7717	.8091
.937	1.1725	.6780	.7605	.7991
.885	1.1631	.6397	.7416	.7820
.833	1.1613	.6018	.7199	.7621
.781	1.1594	.5844	.7100	.7530
.729	1.1499	.5670	.7022	.7457
.677	1.1404	.5403	.6883	.7328
.625	1.1468	.5322	.6812	.7261
.573	1.1531	.5164	.6692	.7148
.521	1.1571	.5149	.6671	.7128
.469	1.1611	.5151	.6661	.7118
.417	1.1699	.5091	.6597	.7057
.366	1.1787	.5087	.6570	.7032
.313	1.1944	.5168	.6578	.7039
.260	1.2102	.5012	.6435	.6903
.208	1.2369	.4498	.6030	.6511
.156	1.2637	.3726	.5430	.5517
-.156	1.3925	.4990	.5986	.6468
-.208	1.3860	.5804	.6471	.6938
-.260	1.3795	.6462	.6844	.7291
-.313	1.3821	.6950	.7091	.7522
-.366	1.3846	.7443	.7332	.7743
-.417	1.3910	.7663	.7422	.7826
-.469	1.3973	.7849	.7495	.7891
-.521	1.4070	.7931	.7508	.7903
-.573	1.4167	.7932	.7482	.7880
-.625	1.4220	.7938	.7471	.7870
-.677	1.4272	.7926	.7452	.7853
-.729	1.4331	.7894	.7422	.7825
-.781	1.4389	.7860	.7391	.7797
-.833	1.4359	.7886	.7411	.7815
-.885	1.4329	.7910	.7430	.7833
-.937	1.4370	.7871	.7401	.7806
-.989	1.4411	.7876	.7393	.7799
-1.042	1.4376	.7882	.7404	.7809
-1.094	1.4342	.7890	.7417	.7821
-1.146	1.4110	.8043	.7550	.7542
-1.198	1.3878	.8177	.7676	.8055

TABLE 18.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.83×10^6 PER METER (4.22×10^6 PER FOOT) - Continued

(c) $x/D = 7.00$; $y/D = 0.0$; $\alpha = 10^\circ$;

$p_\infty = 41\ 890.44\ N/m^2$ ($874.90\ lb/ft^2$);
$q_\infty = 42\ 149.95\ N/m^2$ ($880.32\ lb/ft^2$);
$p_{t,\infty} = 101\ 443.90\ N/m^2$ ($2118.70\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.2832	.7600	.7696	.8072
1.146	1.2786	.7436	.7626	.8009
1.094	1.2741	.7133	.7482	.7880
1.042	1.2695	.6799	.7318	.7730
.989	1.2549	.6484	.7160	.7584
.937	1.2636	.6137	.6969	.7407
.885	1.2622	.5487	.6593	.7053
.833	1.2612	.5619	.6675	.7131
.781	1.2603	.5453	.6578	.7039
.729	1.2534	.5307	.6507	.6971
.677	1.2465	.5276	.6506	.6970
.625	1.2524	.5179	.6431	.5898
.573	1.2584	.5058	.6340	.6811
.521	1.2626	.5086	.6347	.6818
.469	1.2668	.5073	.6328	.6800
.417	1.2736	.5040	.6290	.6763
.366	1.2805	.5076	.6296	.6769
.313	1.2944	.4998	.6214	.6689
.260	1.3083	.4788	.6050	.6529
.208	1.3302	.4302	.5687	.6172
.156	1.3521	.3523	.5104	.5586
-.156	1.4558	.4496	.5557	.6043
-.208	1.4473	.5421	.6120	.6598
-.260	1.4388	.6028	.6473	.6939
-.313	1.4394	.6474	.6707	.7161
-.366	1.4400	.6875	.6910	.7352
-.417	1.4447	.7085	.7003	.7439
-.469	1.4495	.7340	.7116	.7544
-.521	1.4548	.7506	.7183	.7606
-.573	1.4600	.7552	.7192	.7614
-.625	1.4641	.7646	.7227	.7646
-.677	1.4682	.7659	.7223	.7642
-.729	1.4731	.7662	.7212	.7632
-.781	1.4779	.7667	.7202	.7624
-.833	1.4756	.7671	.7210	.7631
-.885	1.4732	.7705	.7232	.7651
-.937	1.4767	.7668	.7206	.7627
-.989	1.4803	.7648	.7188	.7610
-1.042	1.4728	.7690	.7226	.7645
-1.094	1.4653	.7747	.7271	.7687
-1.146	1.4552	.7802	.7322	.7734
-1.198	1.4451	.7871	.7380	.7787

(d) $x/D = 8.39$; $y/D = 0.0$; $\alpha = 10^\circ$;

$p_\infty = 41\ 861.71\ N/m^2$ ($874.30\ lb/ft^2$);
$q_\infty = 42\ 158.57\ N/m^2$ ($880.50\ lb/ft^2$);
$p_{t,\infty} = 101\ 443.90\ N/m^2$ ($2118.70\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.2651	.7500	.7700	.8076
1.146	1.2716	.7310	.7582	.7970
1.094	1.2782	.7096	.7451	.7851
1.042	1.2795	.6731	.7253	.7671
.989	1.2807	.6463	.7104	.7533
.937	1.2770	.6252	.6997	.7434
.885	1.2733	.6094	.6918	.7360
.833	1.2746	.5902	.6805	.7254
.781	1.2758	.5761	.6720	.7173
.729	1.2720	.5700	.6694	.7149
.677	1.2682	.5617	.6655	.7112
.625	1.2763	.5578	.6611	.7071
.573	1.2843	.5397	.6482	.6948
.521	1.2889	.5436	.6494	.6959
.469	1.2935	.5415	.6470	.6936
.417	1.3021	.5352	.6411	.6880
.366	1.3107	.5469	.6459	.6926
.313	1.3247	.5316	.6335	.6806
.260	1.3388	.5164	.6211	.6686
.208	1.3602	.4713	.5887	.6370
.156	1.3817	.3985	.5371	.5856
-.156	1.4560	.4747	.5710	.6195
-.208	1.4508	.5456	.6132	.6610
-.260	1.4457	.5829	.6350	.6821
-.313	1.4405	.6360	.6645	.7103
-.366	1.4353	.6636	.6800	.7249
-.417	1.4334	.6950	.6963	.7402
-.469	1.4315	.7254	.7118	.7546
-.521	1.4357	.7406	.7182	.7605
-.573	1.4399	.7587	.7259	.7676
-.625	1.4433	.7701	.7305	.7718
-.677	1.4468	.7743	.7316	.7728
-.729	1.4496	.7778	.7325	.7736
-.781	1.4524	.7793	.7325	.7737
-.833	1.4545	.7789	.7318	.7730
-.885	1.4566	.7795	.7316	.7728
-.937	1.4585	.7794	.7310	.7723
-.989	1.4604	.7792	.7305	.7718
-1.042	1.4484	.7857	.7365	.7773
-1.094	1.4365	.7936	.7433	.7835
-1.146	1.4229	.8035	.7515	.7909
-1.198	1.4093	.8112	.7587	.7975

TABLE 18.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.83×10^6 PER METER (4.22×10^6 PER FOOT) - Continued

(e) x/D = 9.00; y/D = 0.0; $\alpha = 10^\circ$;

p_∞ = 41 856.92 N/m^2 (874.20 lb/ft^2);
q_∞ = 42 169.10 N/m^2 (880.72 lb/ft^2);
$p_{t,\infty}$ = 101 458.27 N/m^2 (2119.00 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.2500	.7611	.7803	.8168
1.146	1.2596	.7391	.7660	.8040
1.094	1.2693	.7149	.7505	.7900
1.042	1.2695	.6864	.7353	.7762
.989	1.2697	.6654	.7239	.7658
.937	1.2676	.6385	.7097	.7527
.885	1.2656	.6218	.7009	.7445
.833	1.2663	.6032	.6902	.7345
.781	1.2670	.5889	.6818	.7266
.729	1.2675	.5863	.6801	.7251
.677	1.2680	.5799	.6763	.7214
.625	1.2714	.5785	.6746	.7198
.573	1.2747	.5747	.6714	.7169
.521	1.2792	.5783	.6724	.7177
.469	1.2838	.5715	.6672	.7129
.417	1.2917	.5623	.6598	.7058
.366	1.2996	.5694	.6619	.7079
.313	1.3133	.5600	.6530	.6994
.260	1.3270	.5437	.6401	.6870
.208	1.3506	.4946	.6051	.6531
.156	1.3742	.4225	.5545	.6031
-.156	1.4289	.4914	.5864	.6348
-.208	1.4198	.5756	.6367	.6838
-.260	1.4106	.6222	.6642	.7100
-.313	1.4112	.6472	.6772	.7223
-.366	1.4118	.6790	.6935	.7376
-.417	1.4131	.6947	.7011	.7447
-.469	1.4144	.7279	.7174	.7598
-.521	1.4188	.7450	.7246	.7664
-.573	1.4233	.7608	.7311	.7724
-.625	1.4257	.7683	.7341	.7751
-.677	1.4281	.7811	.7396	.7801
-.729	1.4329	.7829	.7392	.7798
-.781	1.4378	.7862	.7395	.7801
-.833	1.4382	.7876	.7400	.7805
-.885	1.4387	.7879	.7401	.7806
-.937	1.4399	.7897	.7406	.7811
-.989	1.4410	.7890	.7400	.7805
-1.042	1.4288	.7966	.7467	.7866
-1.094	1.4165	.8055	.7541	.7933
-1.146	1.4017	.8132	.7617	.8002
-1.198	1.3869	.8214	.7696	.8072

(f) x/D = 10.00; y/D = 0.0; $\alpha = 10^\circ$;

p_∞ = 41 900.01 N/m^2 (875.10 lb/ft^2);
q_∞ = 42 168.14 N/m^2 (880.70 lb/ft^2);
$p_{t,\infty}$ = 101 477.42 N/m^2 (2119.40 lb/ft^2)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.2271	.7996	.8072	.8406
1.146	1.2378	.7683	.7879	.8235
1.094	1.2485	.7513	.7757	.8127
1.042	1.2534	.7178	.7568	.7957
.989	1.2584	.7018	.7468	.7867
.937	1.2541	.6815	.7372	.7779
.885	1.2498	.6607	.7271	.7687
.833	1.2511	.6362	.7131	.7558
.781	1.2523	.6290	.7087	.7517
.729	1.2507	.6235	.7061	.7493
.677	1.2490	.6171	.7029	.7463
.625	1.2523	.6167	.7017	.7453
.573	1.2555	.6096	.6968	.7407
.521	1.2570	.6109	.6971	.7410
.469	1.2585	.6118	.6972	.7410
.417	1.2686	.6007	.6881	.7325
.366	1.2788	.6061	.6884	.7328
.313	1.2919	.5898	.6757	.7208
.260	1.3050	.5739	.6632	.7090
.208	1.3277	.5350	.6348	.6819
.156	1.3503	.4544	.5801	.6285
-.156	1.3890	.5220	.6130	.6608
-.208	1.3793	.5895	.6538	.7001
-.260	1.3695	.6376	.6823	.7271
-.313	1.3706	.6671	.6976	.7414
-.366	1.3717	.6883	.7084	.7514
-.417	1.3732	.7225	.7253	.7671
-.469	1.3748	.7377	.7325	.7737
-.521	1.3807	.7521	.7380	.7787
-.573	1.3867	.7671	.7438	.7839
-.625	1.3909	.7809	.7493	.7889
-.677	1.3951	.7880	.7516	.7910
-.729	1.4024	.7958	.7533	.7925
-.781	1.4097	.7956	.7513	.7907
-.833	1.4091	.7993	.7531	.7924
-.885	1.4084	.8021	.7547	.7938
-.937	1.4125	.8027	.7538	.7930
-.989	1.4166	.7998	.7514	.7908
-1.042	1.4111	.8051	.7554	.7944
-1.094	1.4056	.8090	.7586	.7974
-1.146	1.3763	.8255	.7745	.8116
-1.198	1.3470	.8415	.7904	.8257

TABLE 18.- VARIATION OF p_1/p_∞, q_1/q_∞, M_1/M_∞, AND V_1/V_∞ WITH z/D AT THE CENTER OF WAKE OF THE VIKING ENTRY VEHICLE AT A MACH NUMBER OF 1.20 AND A REYNOLDS NUMBER OF 13.83×10^6 PER METER (4.22×10^6 PER FOOT) - Concluded

(g) $x/D = 11.00$; $y/D = 0.0$; $\alpha = 10^\circ$;
$p_\infty = 41\ 876.07\ N/m^2$ ($874.60\ lb/ft^2$);
$q_\infty = 42\ 194.00\ N/m^2$ ($881.24\ lb/ft^2$);
$p_{t,\infty} = 101\ 515.72\ N/m^2$ ($2120.20\ lb/ft^2$)

z/D	p_1/p_∞	q_1/q_∞	M_1/M_∞	V_1/V_∞
1.198	1.1676	.3496	.8530	.8802
1.146	1.1927	.8175	.8279	.8586
1.094	1.2177	.7854	.8031	.8370
1.042	1.2332	.7484	.7790	.8157
.989	1.2487	.7255	.7622	.8006
.937	1.2447	.7118	.7562	.7952
.885	1.2406	.6932	.7475	.7873
.833	1.2393	.6727	.7368	.7776
.781	1.2379	.6743	.7380	.7787
.729	1.2370	.6568	.7286	.7701
.677	1.2361	.6485	.7243	.7661
.625	1.2372	.6521	.7260	.7677
.573	1.2383	.6365	.7170	.7594
.521	1.2417	.6422	.7191	.7614
.469	1.2452	.6365	.7149	.7575
.417	1.2534	.6265	.7070	.7502
.365	1.2617	.6281	.7056	.7488
.313	1.2734	.6206	.6981	.7419
.260	1.2851	.6024	.6847	.7293
.208	1.3051	.5636	.6571	.7033
.156	1.3251	.4783	.6008	.6489
-.155	1.3476	.5428	.6346	.6818
-.208	1.3397	.6177	.6790	.7240
-.260	1.3317	.6594	.7037	.7471
-.313	1.3332	.6753	.7117	.7545
-.365	1.3347	.7048	.7267	.7683
-.417	1.3371	.7252	.7364	.7773
-.469	1.3394	.7421	.7444	.7845
-.521	1.3465	.7569	.7498	.7894
-.573	1.3535	.7712	.7548	.7940
-.625	1.3617	.7876	.7605	.7991
-.677	1.3700	.7884	.7586	.7974
-.729	1.3774	.7952	.7598	.7985
-.781	1.3848	.8028	.7614	.7999
-.833	1.3634	.8199	.7755	.8125
-.885	1.3419	.8356	.7891	.8246
-.937	1.3281	.8457	.7980	.8325
-.989	1.3142	.8552	.8067	.8402
-1.042	1.1883	.9132	.8766	.9002
-1.094	1.0625	.9636	.9524	.9624
-1.146	1.0622	.9626	.9520	.9621
-1.198	1.0620	.9652	.9533	.9632

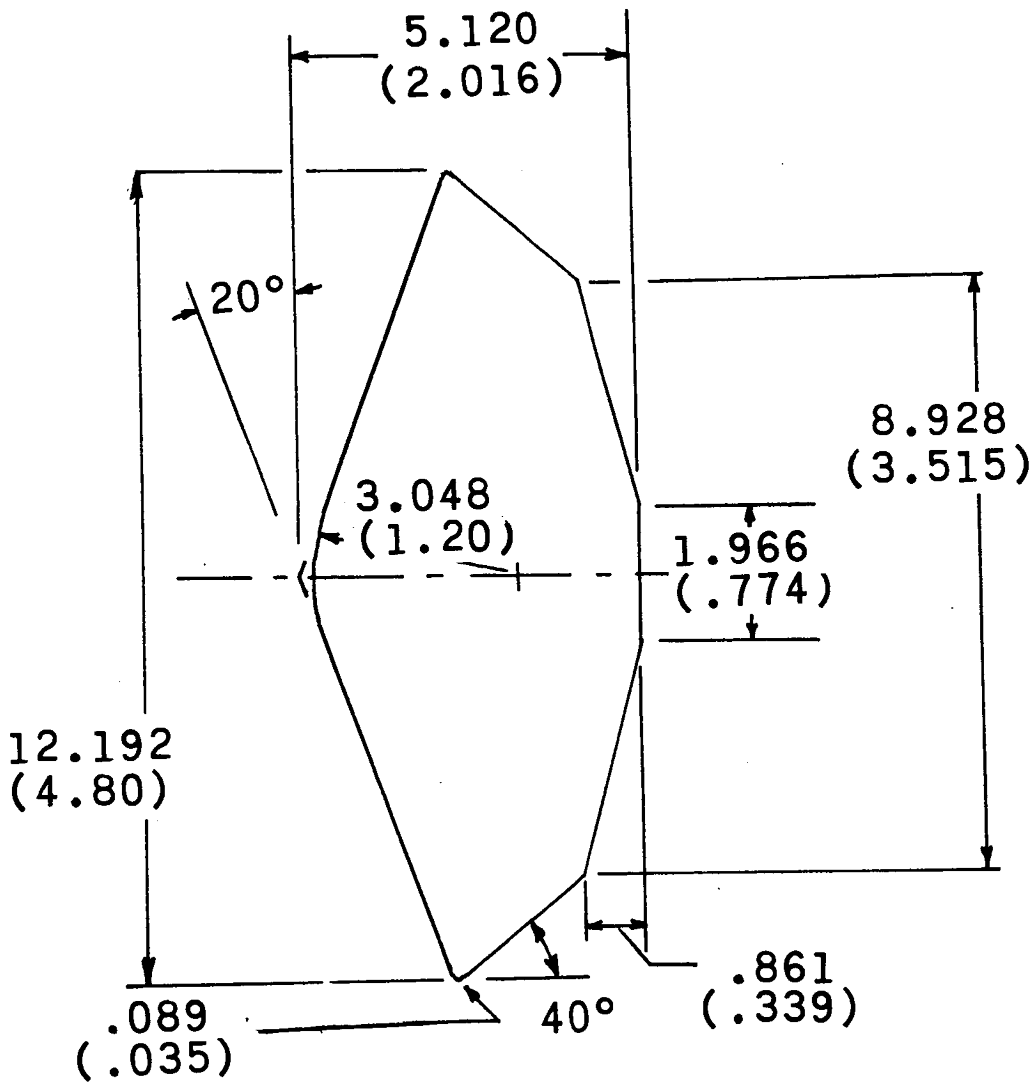


Figure 1.- Sketch of Viking Entry Vehicle model used in wake survey. All dimensions are in centimeters (inches).

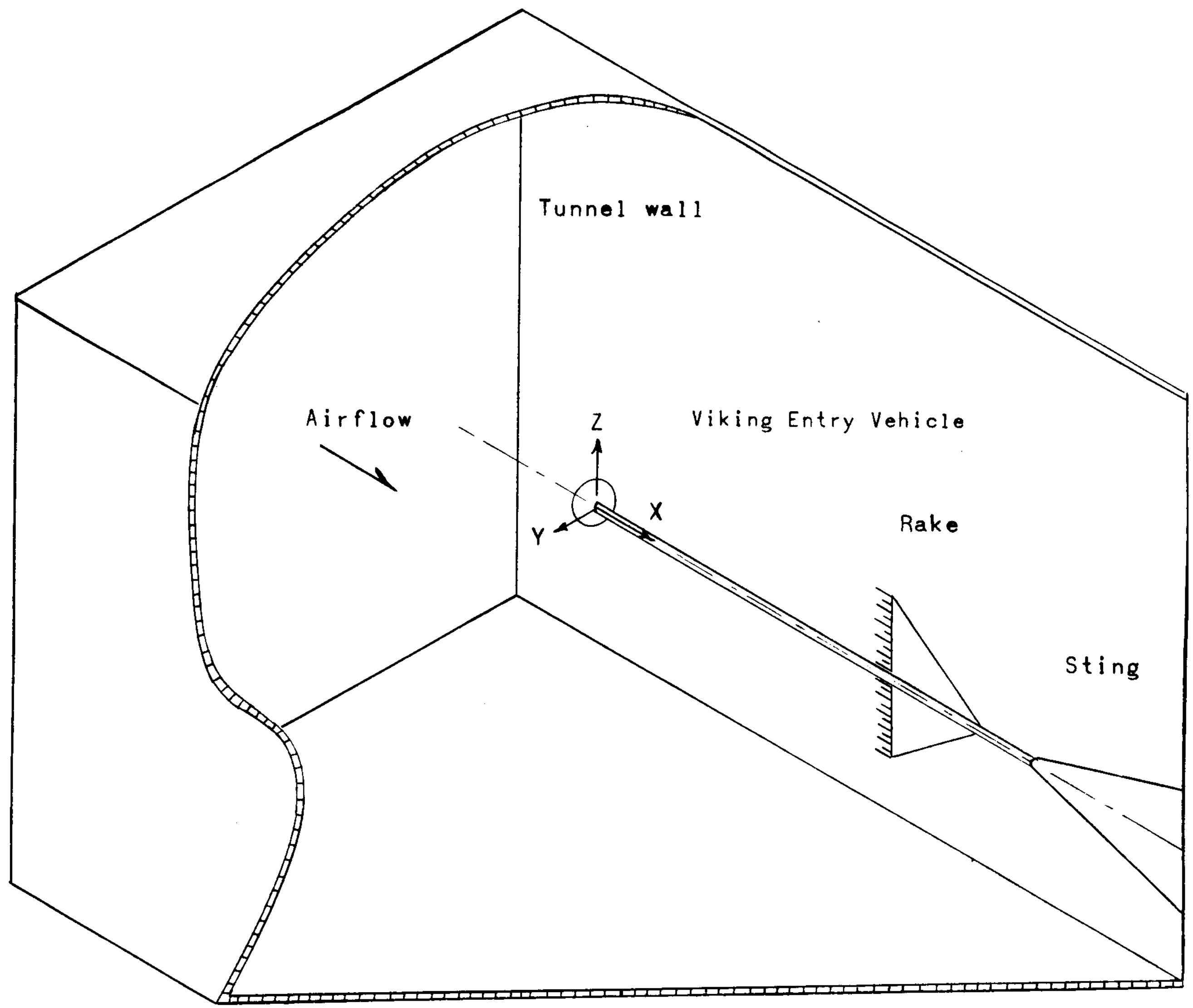


Figure 2.- Schematic of Viking Entry Vehicle mounted in tunnel.

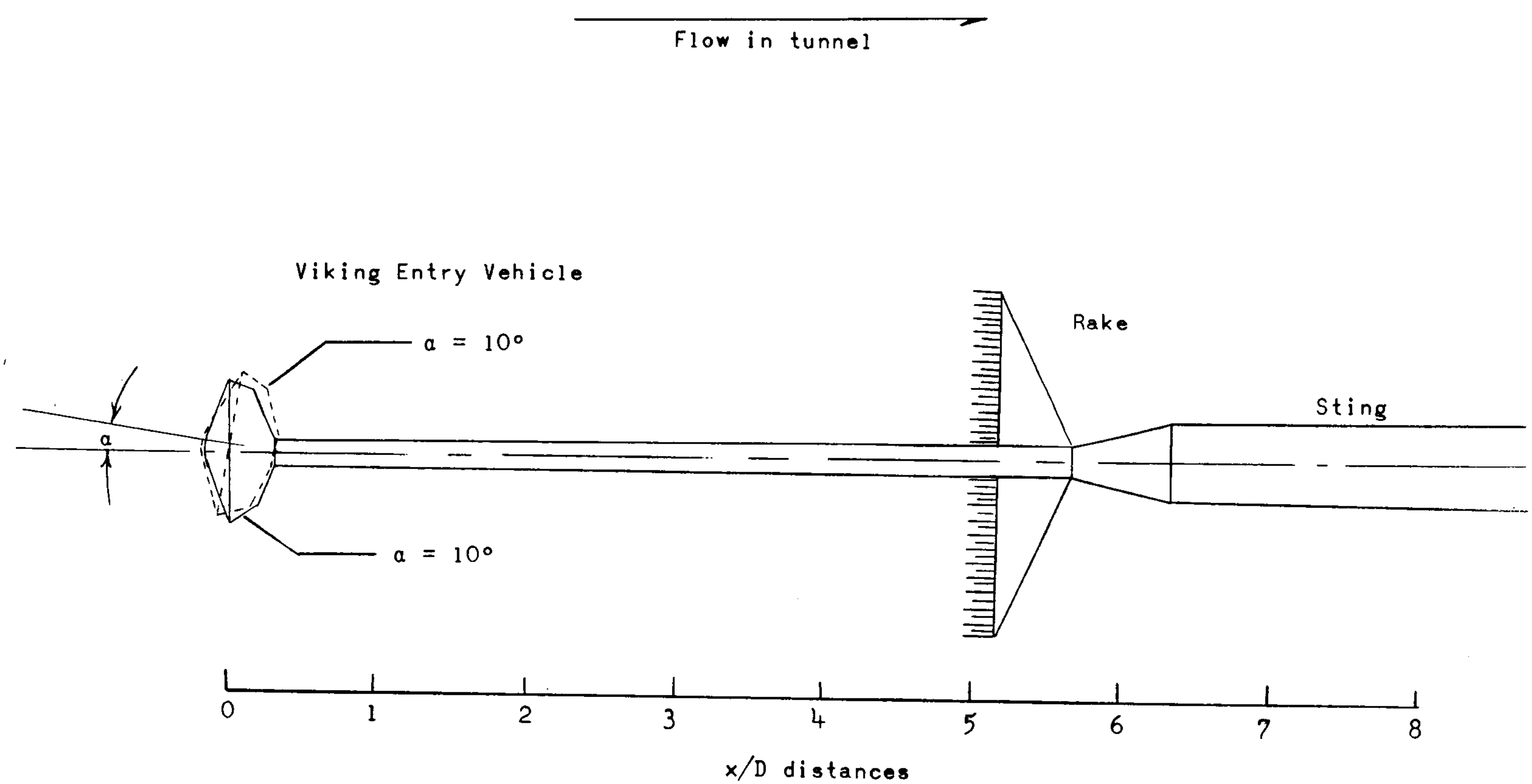


Figure 3.- Sketch showing angle of attack of Viking Entry Vehicle mounted in tunnel.

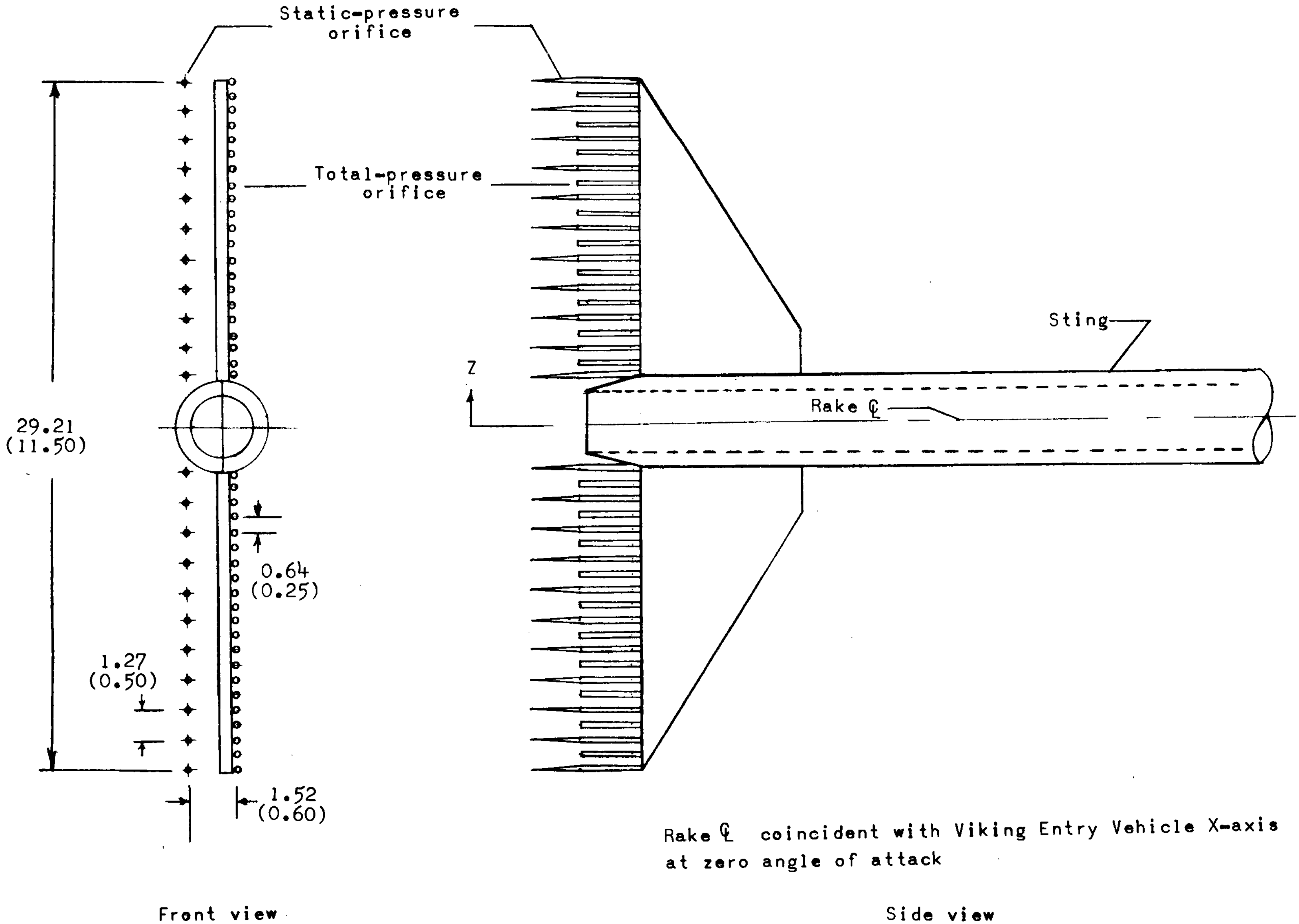
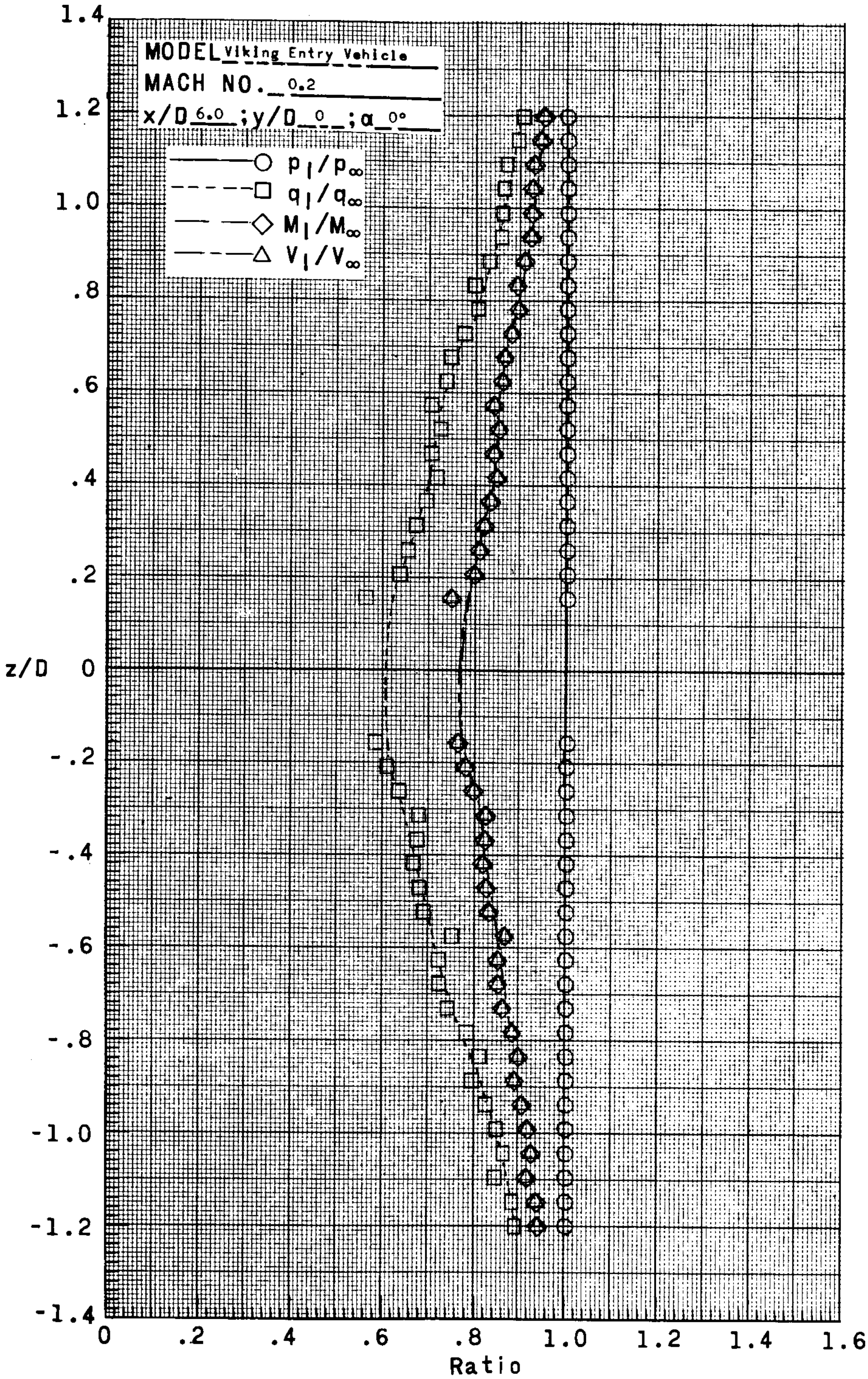
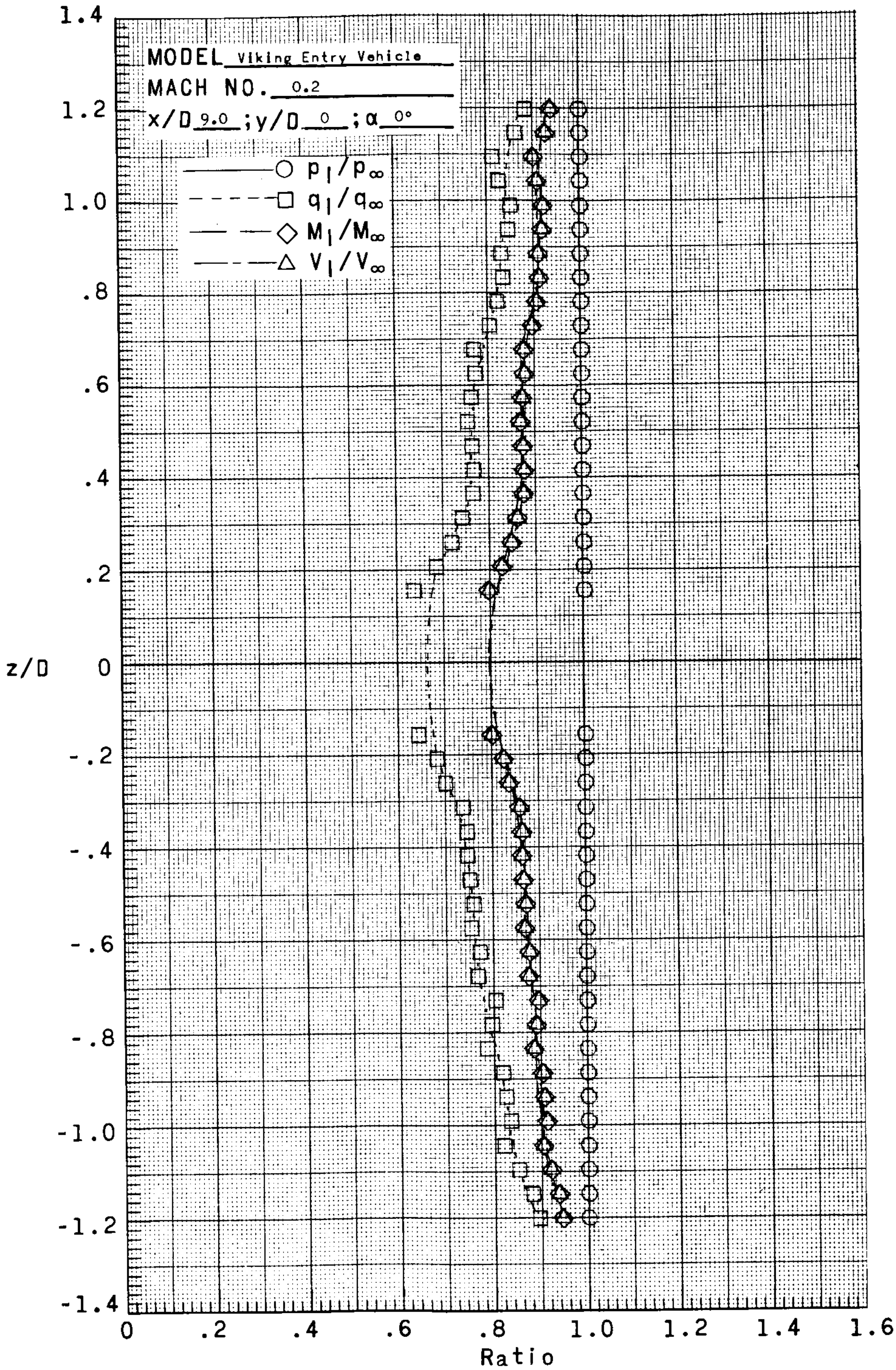


Figure 4.- Pressure rake used in wake survey. Dimensions are in centimeters (inches).



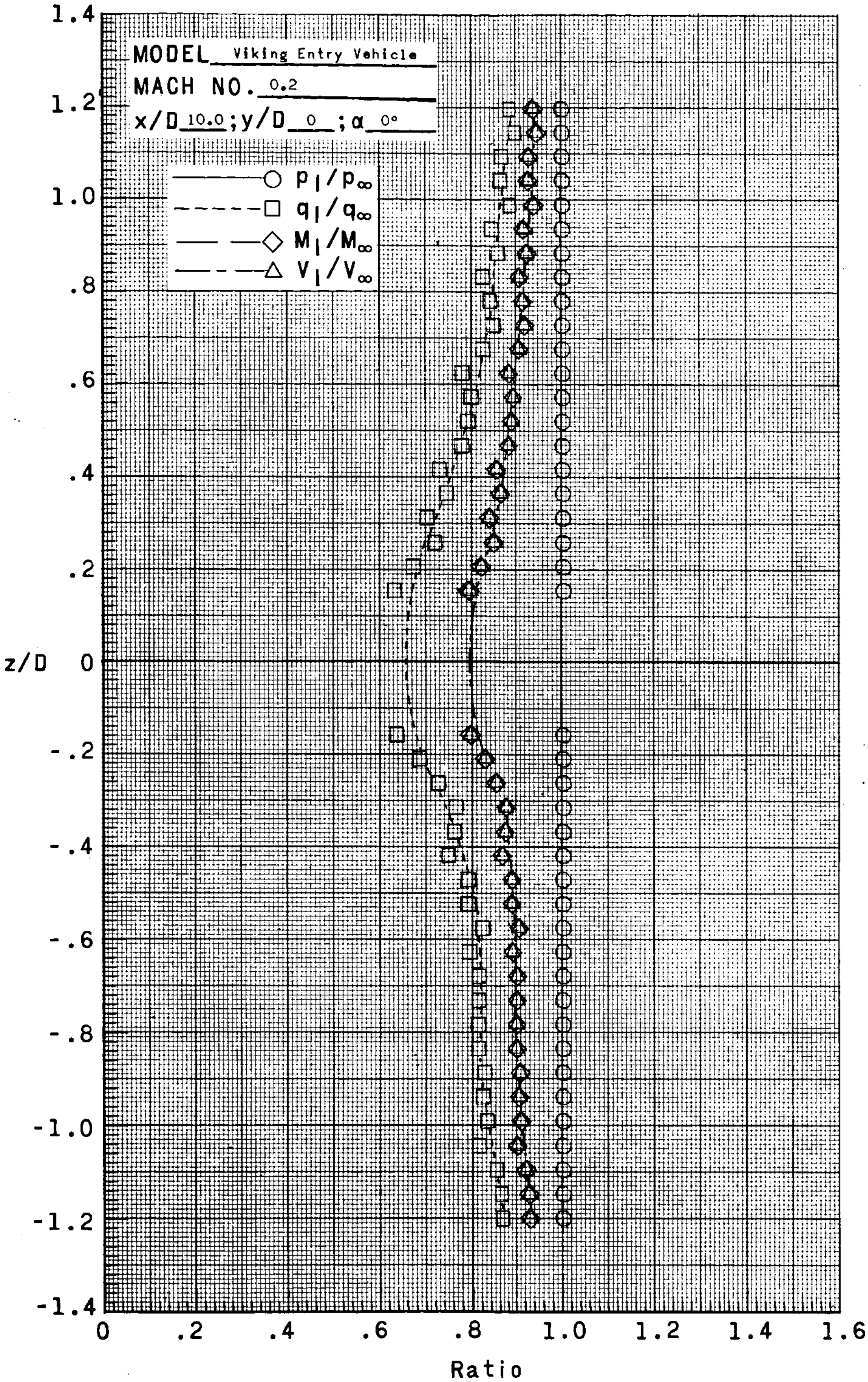
(a) $x/D = 6.00$.

Figure 5.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.20, $y/D = 0$, $\alpha = 0^{\circ}$, and Reynolds number of 3.97×10^6 per meter (1.21×10^6 per foot).



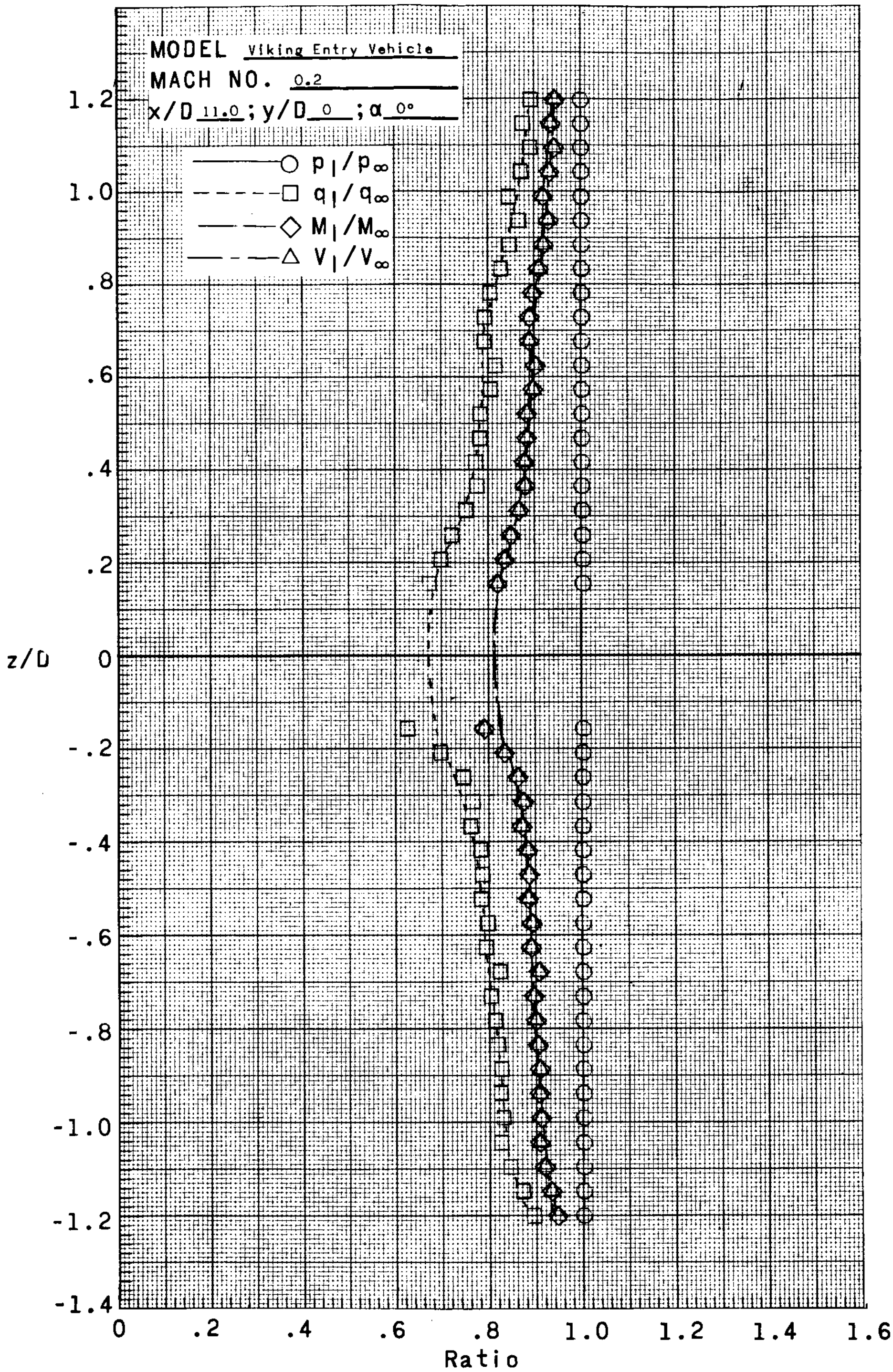
(b) x/D = 9.00.

Figure 5.- Continued.



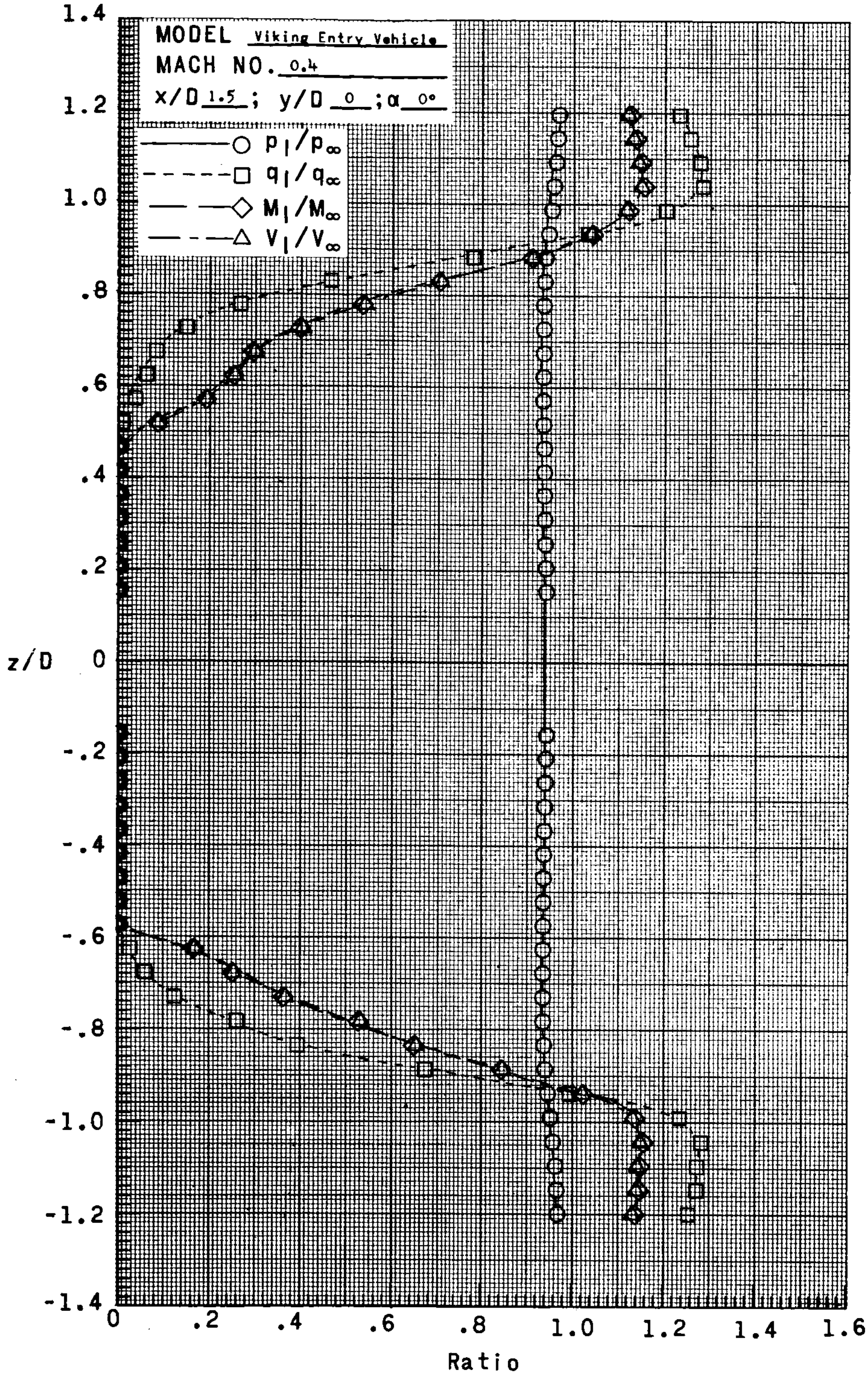
(c) x/D = 10.00.

Figure 5.- Continued.



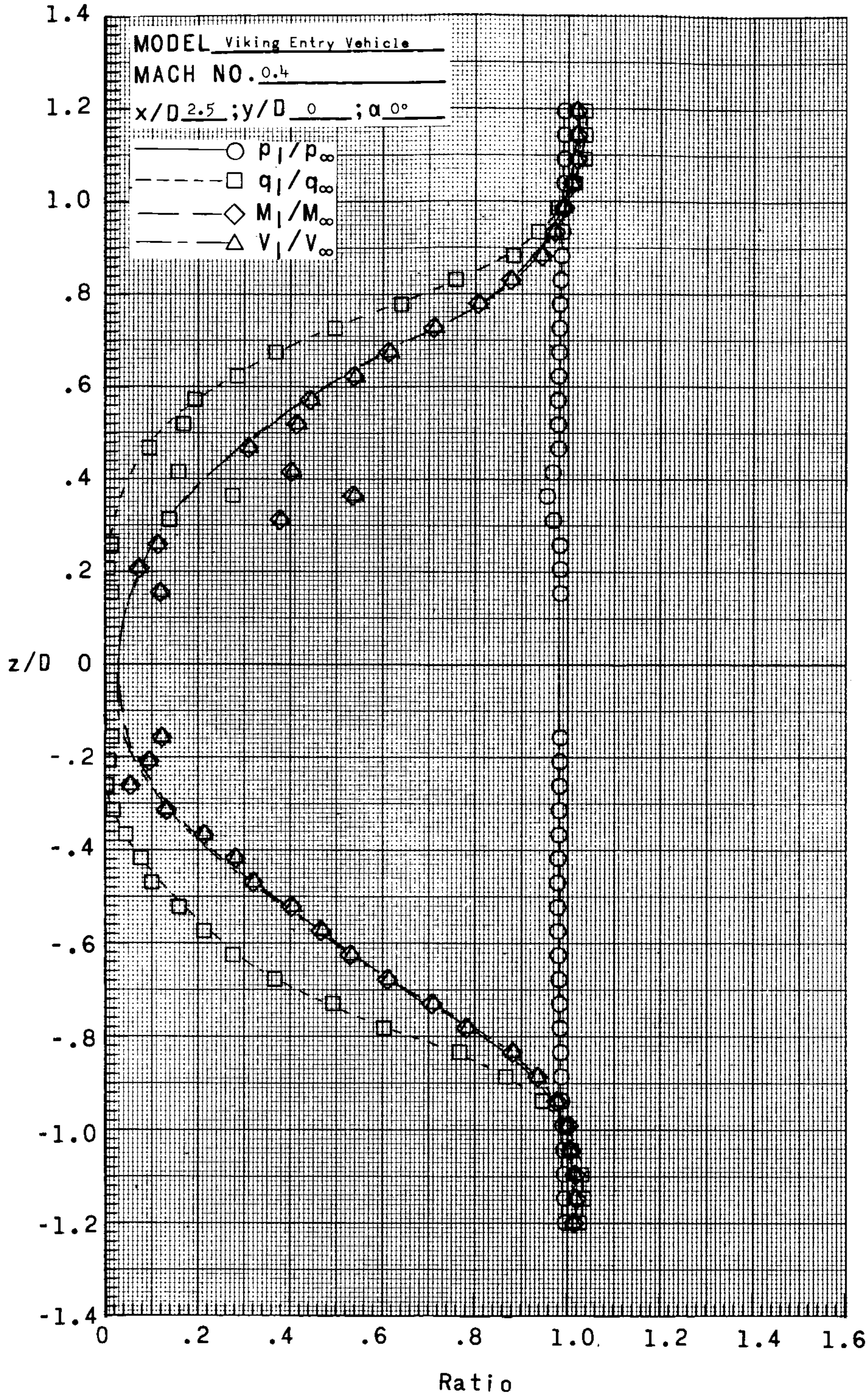
(d) x/D = 11.00.

Figure 5.- Concluded.



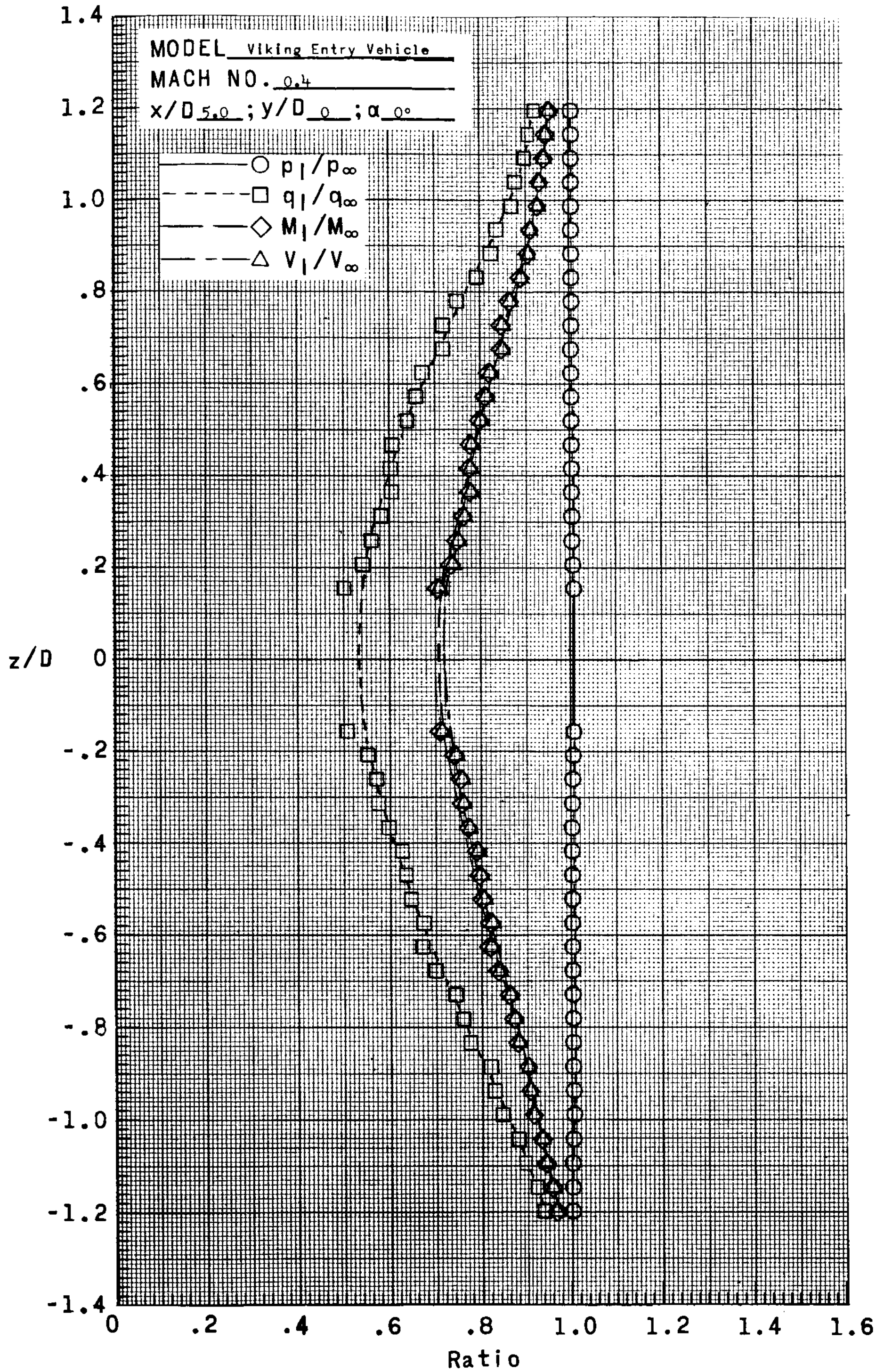
(a) $x/D = 1.50$.

Figure 6.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.40, $y/D = 0$, $\alpha = 0^o$, and Reynolds number of 7.54×10^6 per meter (2.30×10^6 per foot).



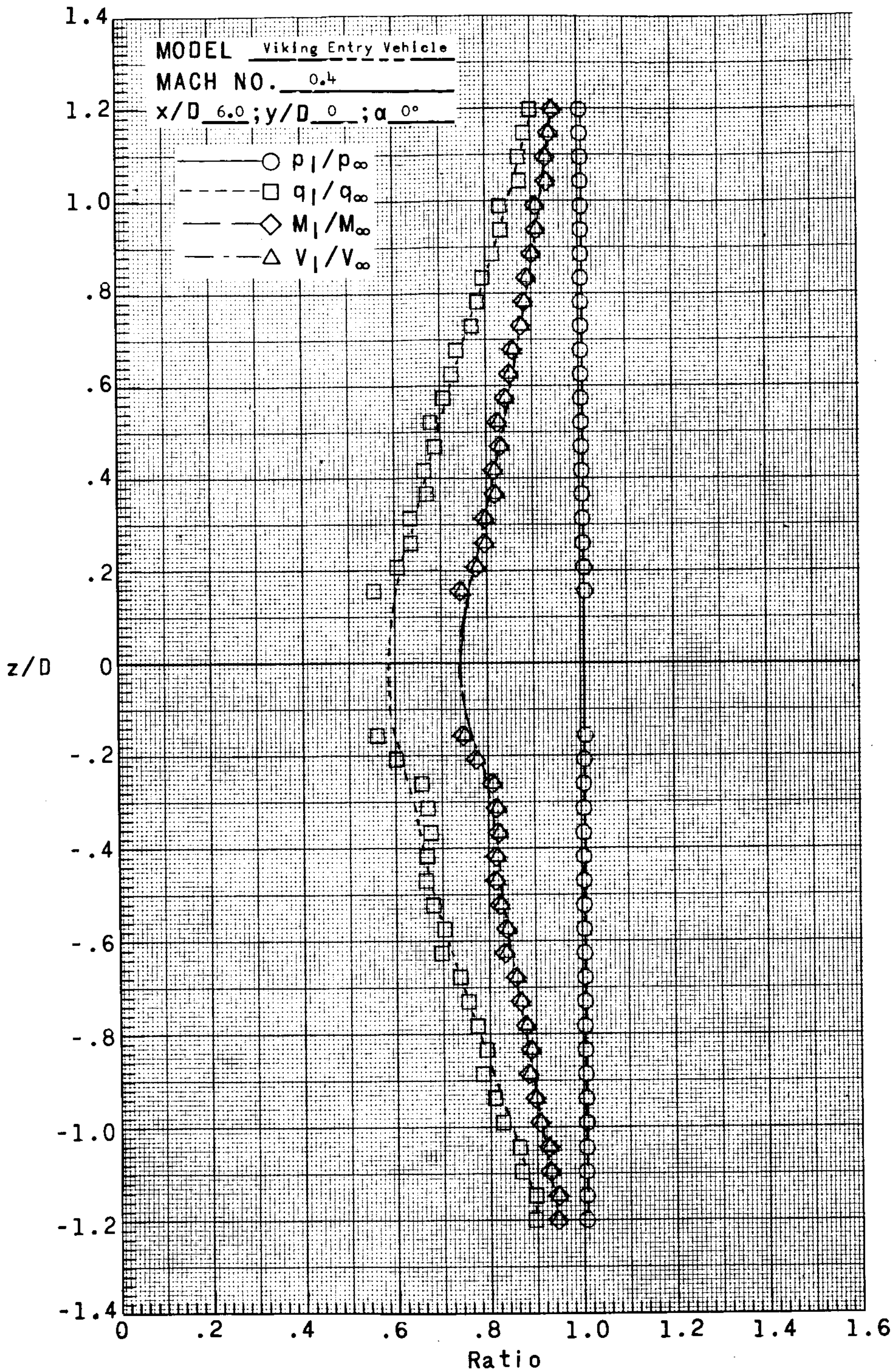
(b) x/D = 2.50.

Figure 6.- Continued.



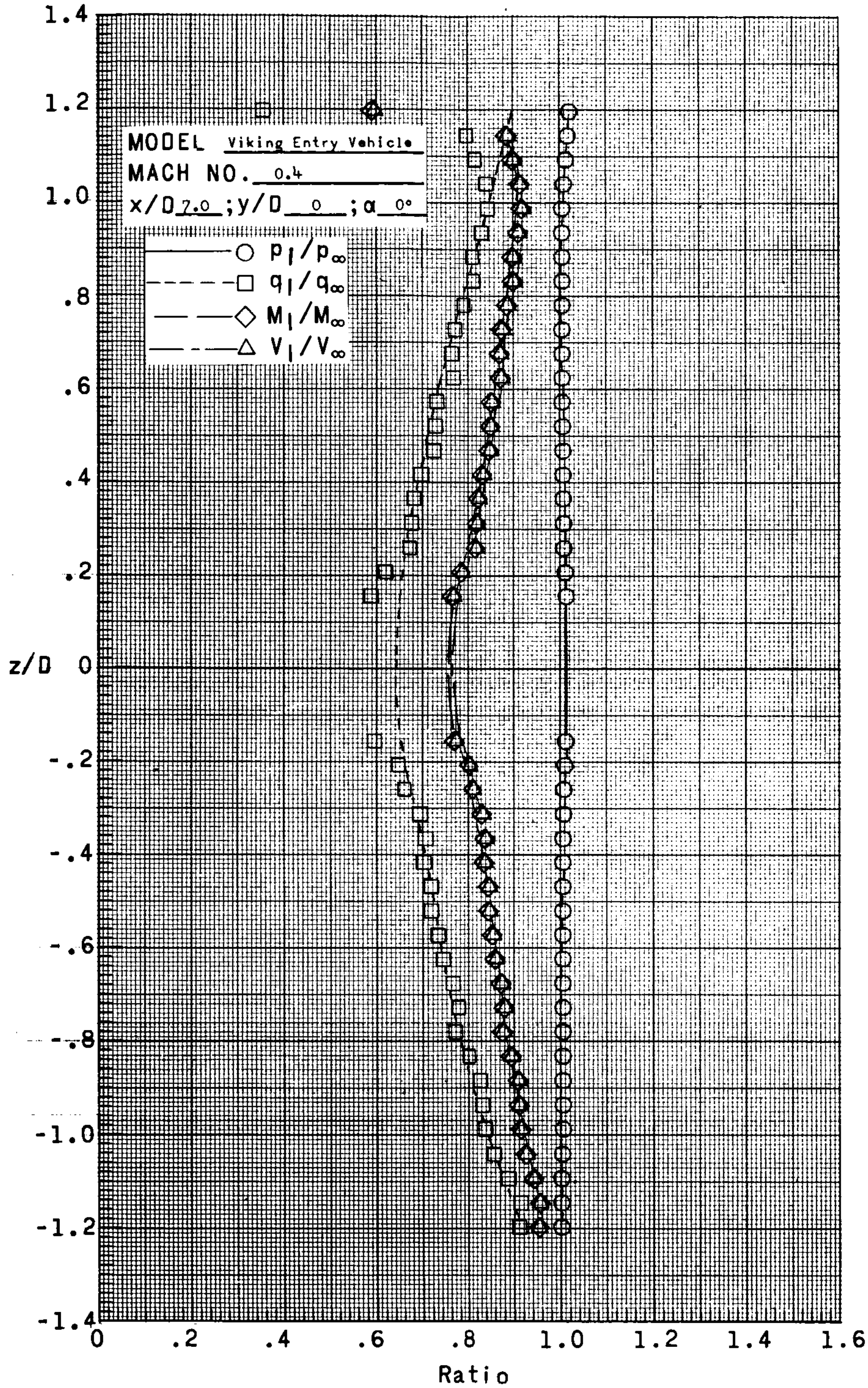
(c) x/D = 5.00.

Figure 6.- Continued.



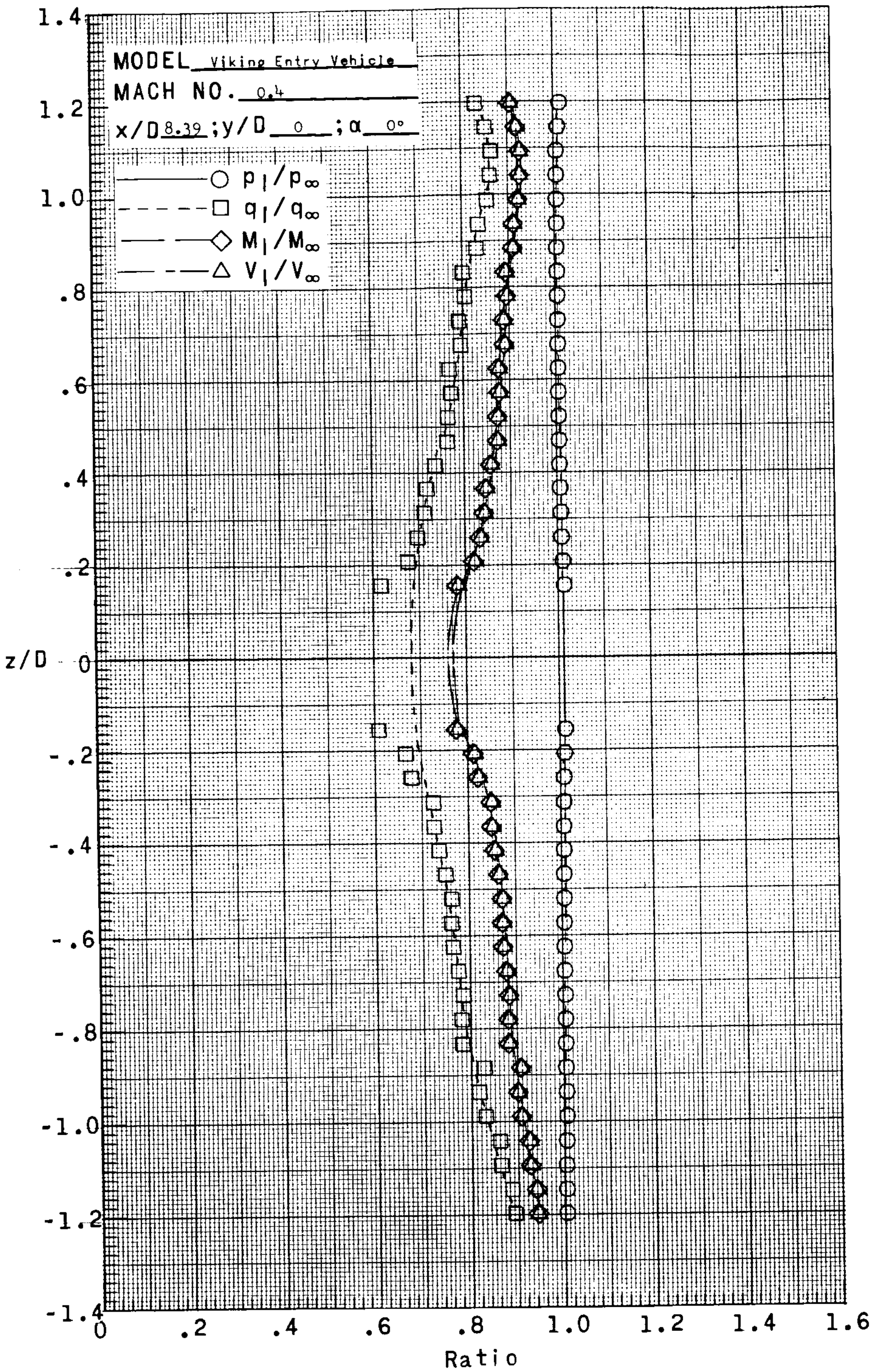
(d) x/D = 6.00.

Figure 6.- Continued.



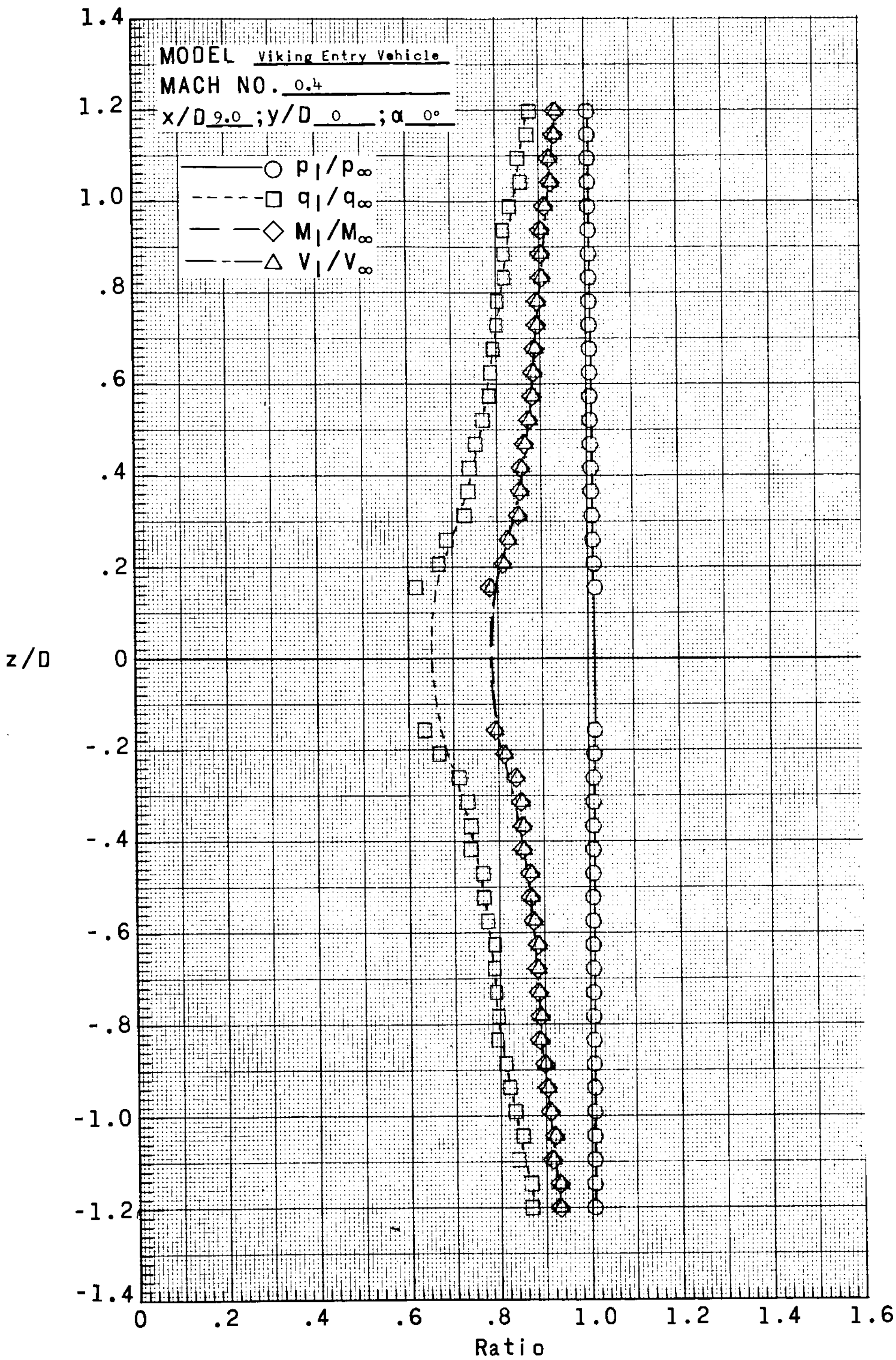
(e) x/D = 7.00.

Figure 6.- Continued.



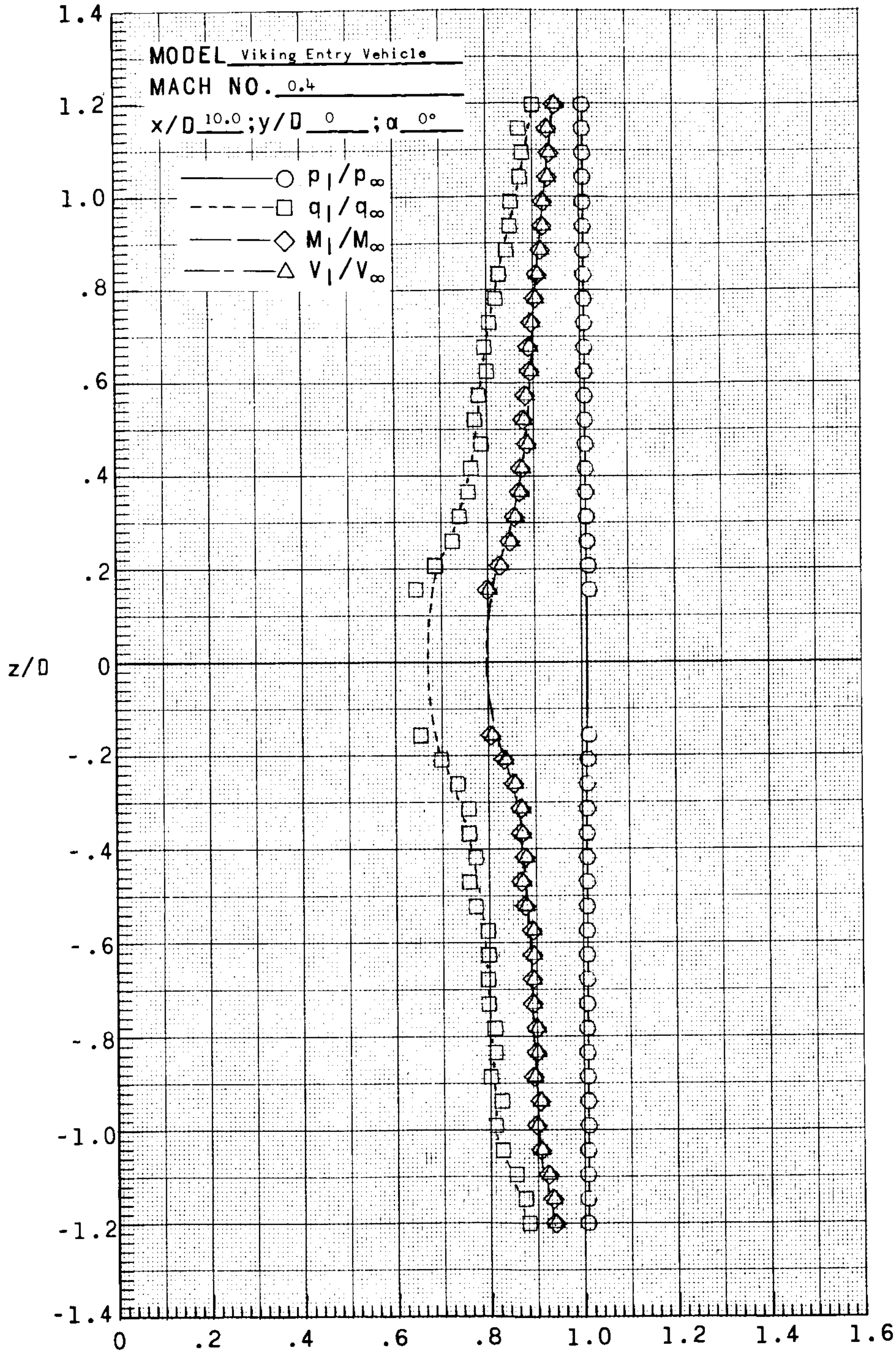
(f) x/D = 8.39.

Figure 6.- Continued.



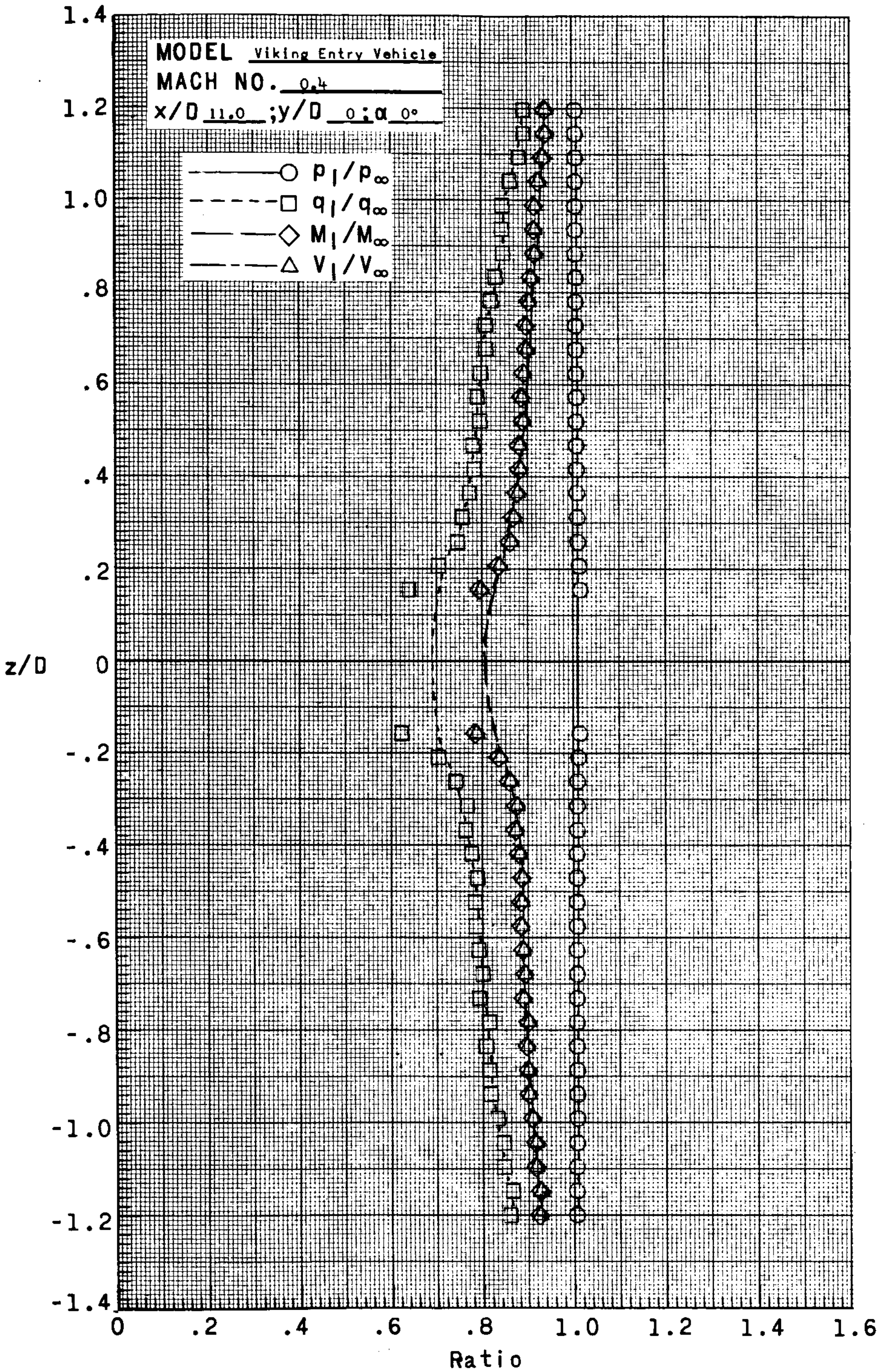
(g) x/D = 9.00.

Figure 6.- Continued.



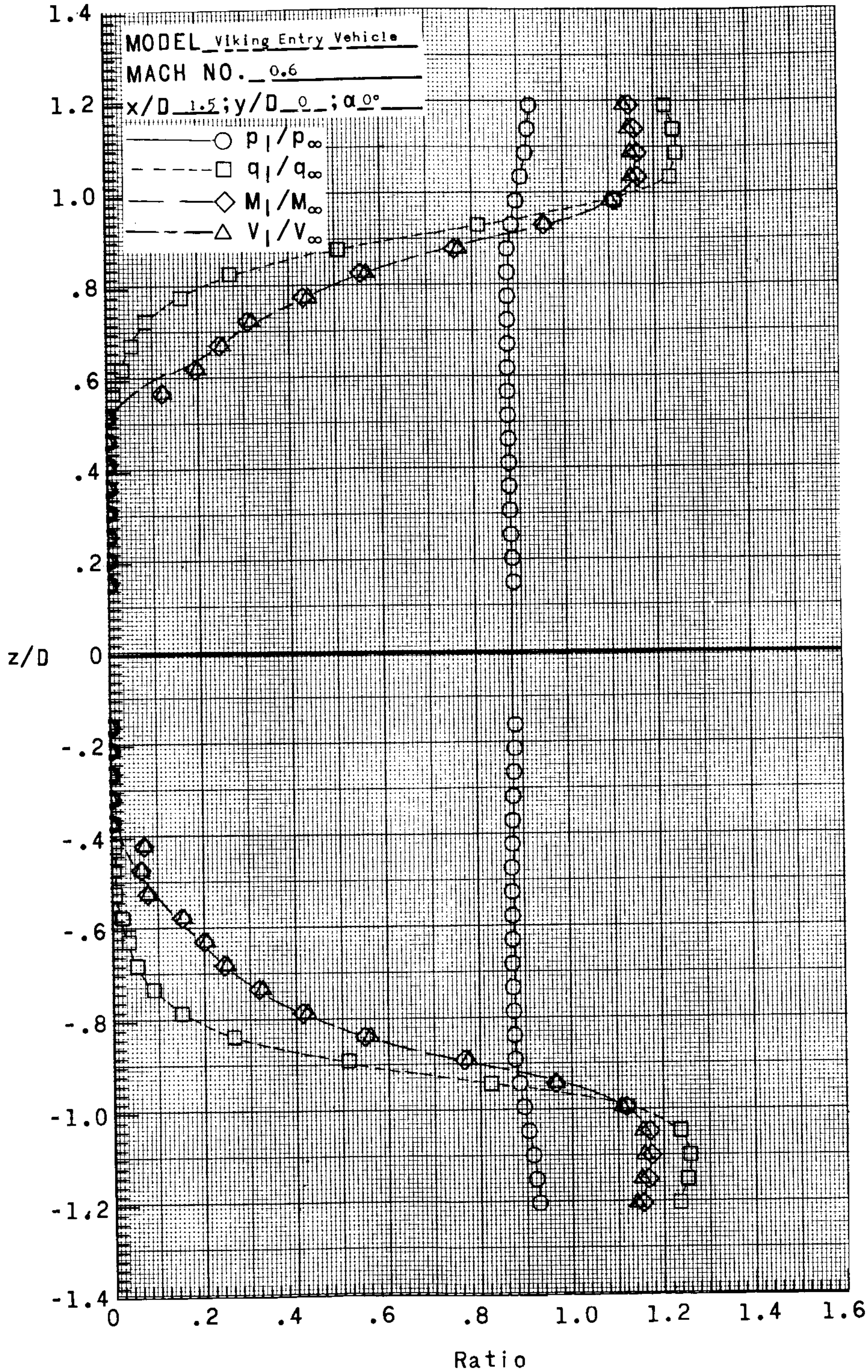
(h) x/D = 10.00.

Figure 6.- Continued.



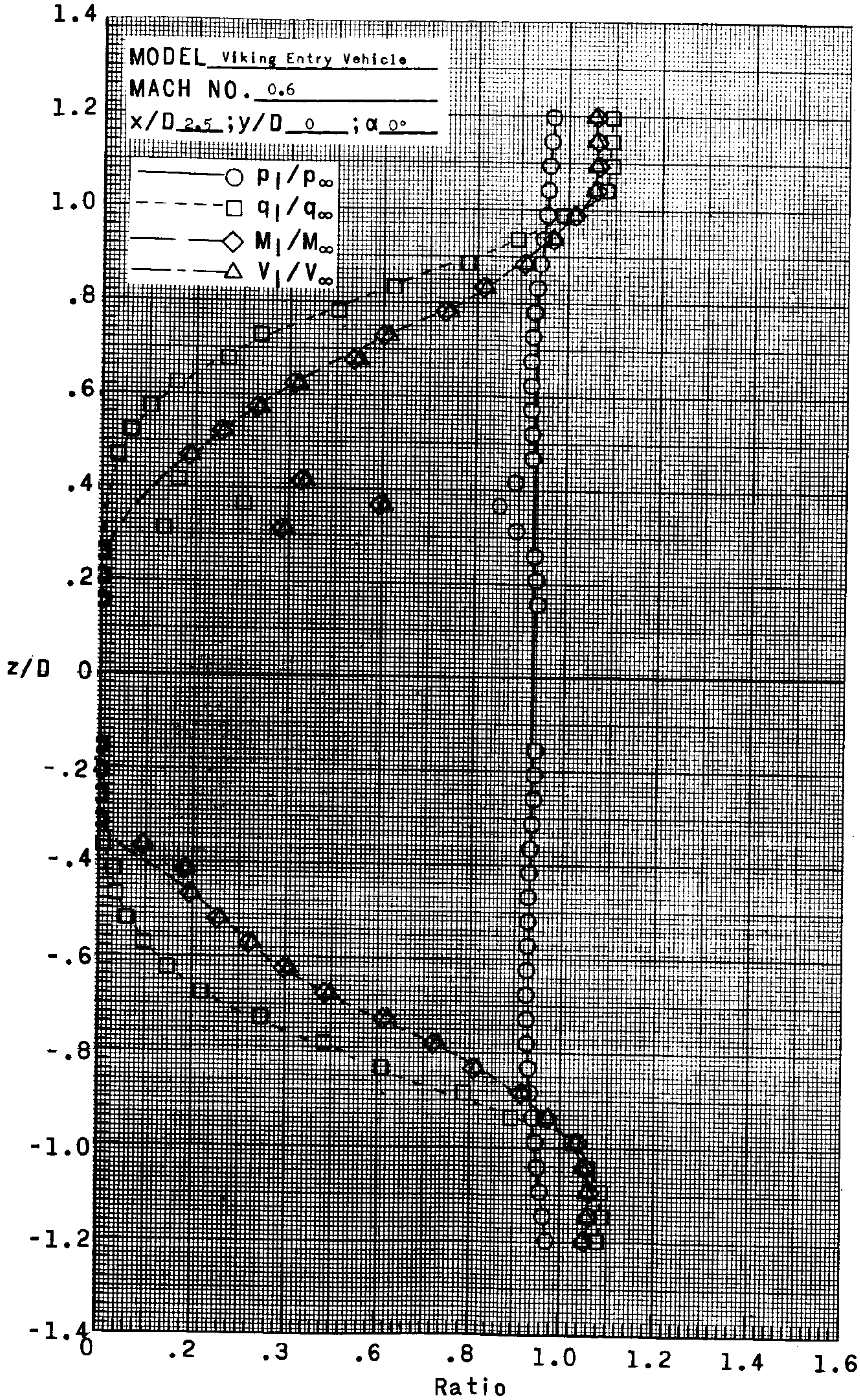
(i) x/D = 11.00.

Figure 6.- Concluded.



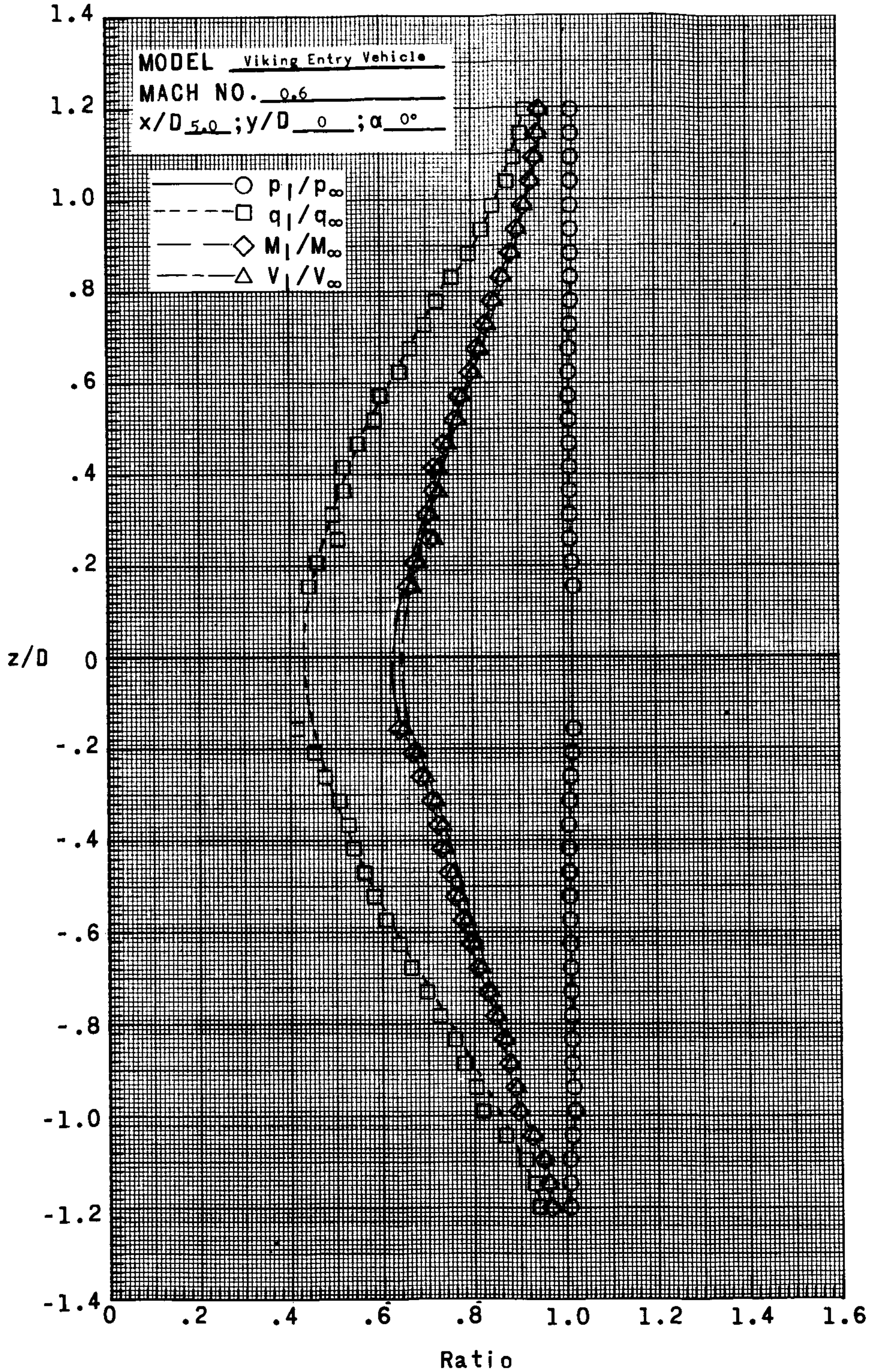
(a) $x/D = 1.50$.

Figure 7.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.60, $y/D = 0$, $\alpha = 0^o$, and Reynolds number of 10.40×10^6 per meter $(3.17 \times 10^6$ per foot).



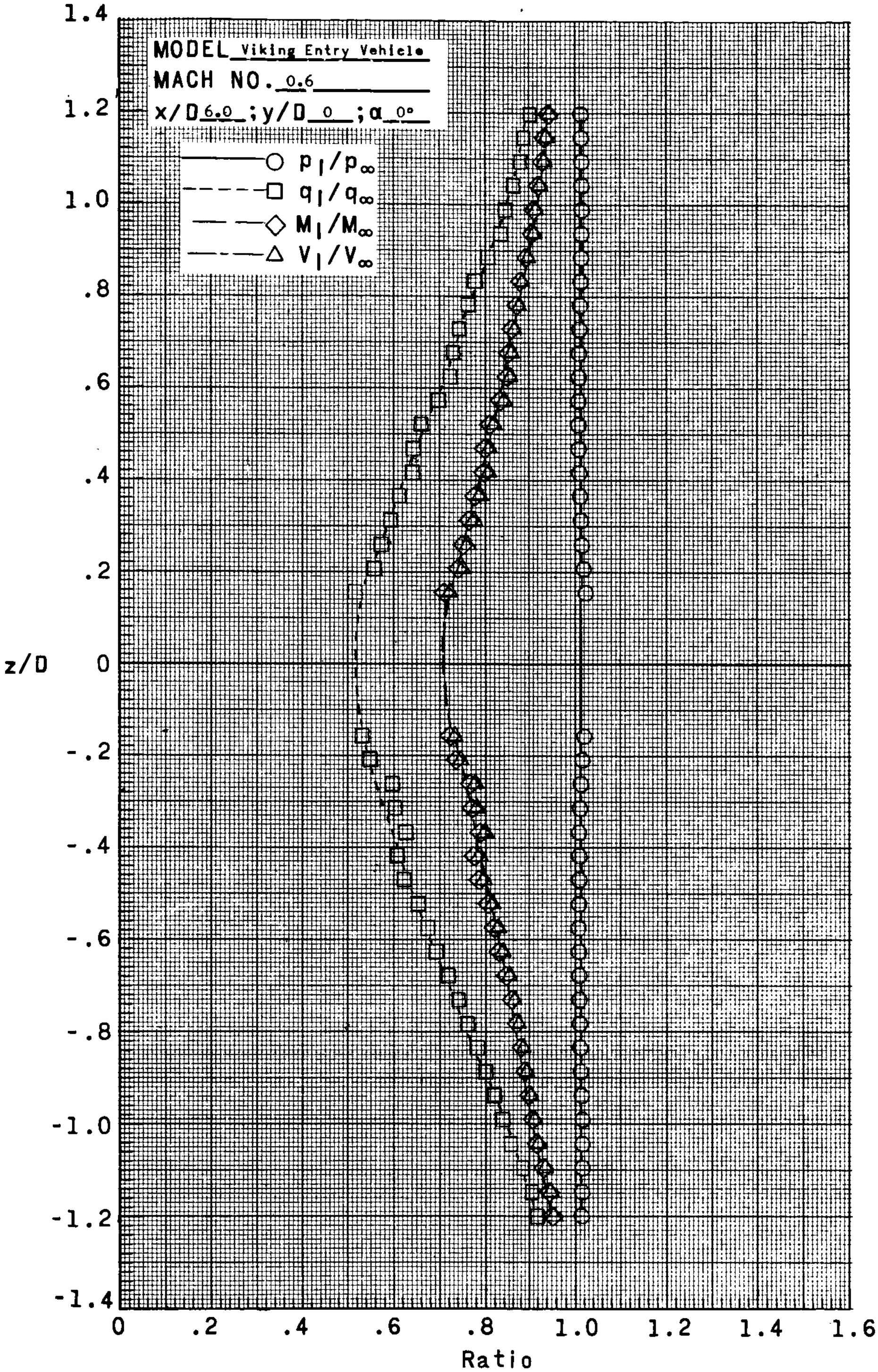
(b) x/D = 2.50.

Figure 7.- Continued.



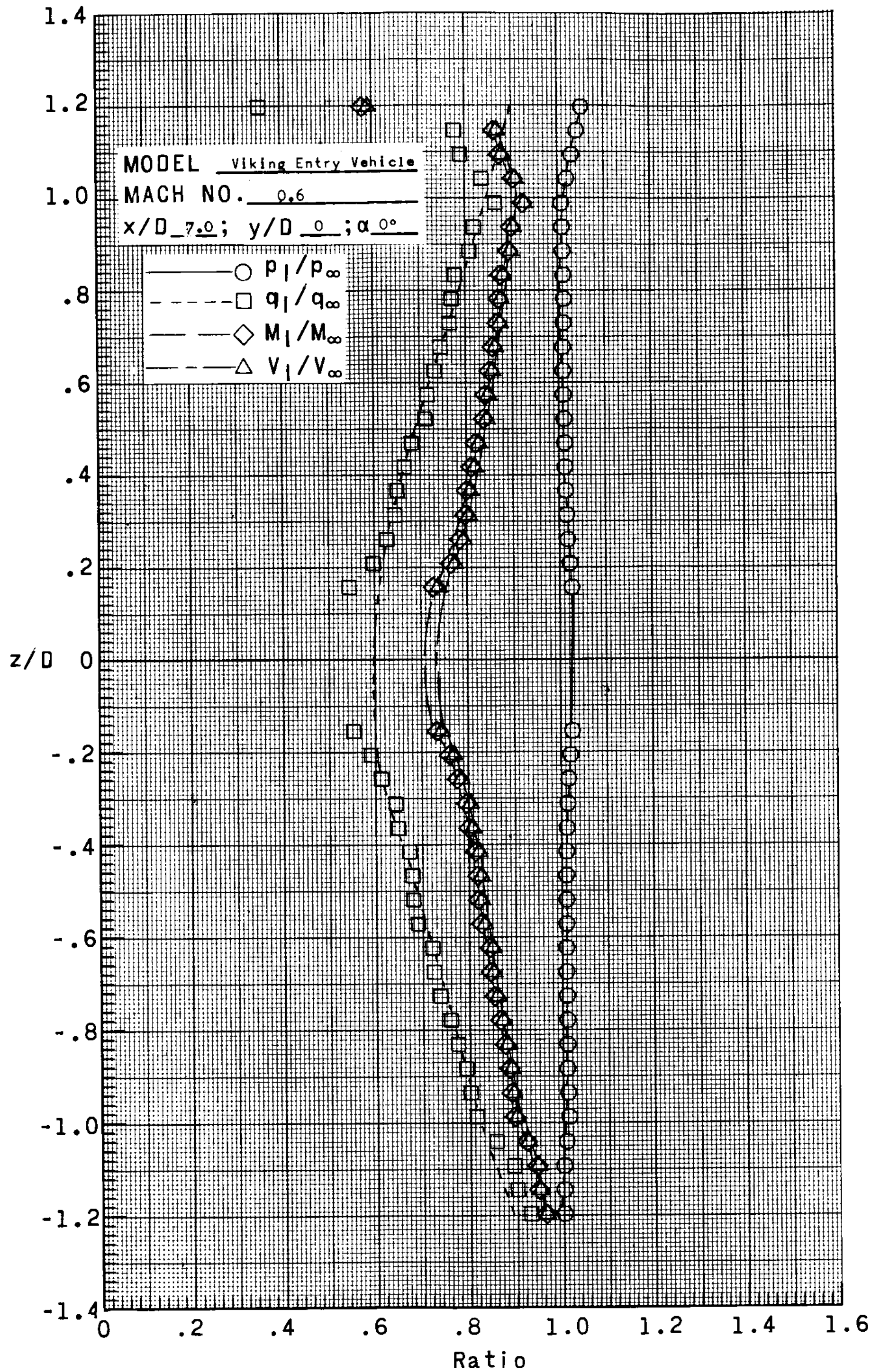
(c) x/D = 5.00.

Figure 7.- Continued.



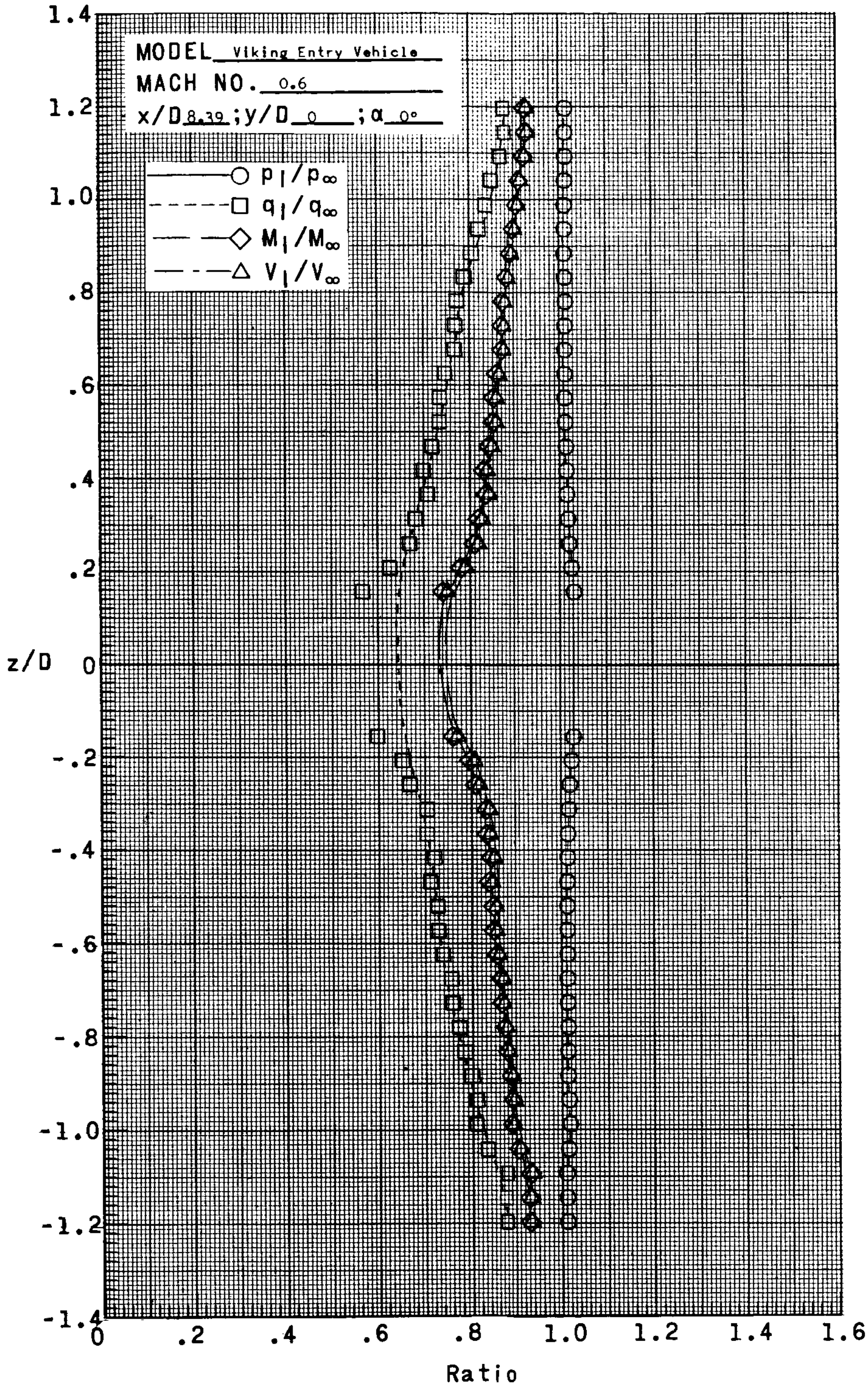
(d) x/D = 6.00.

Figure 7.- Continued.



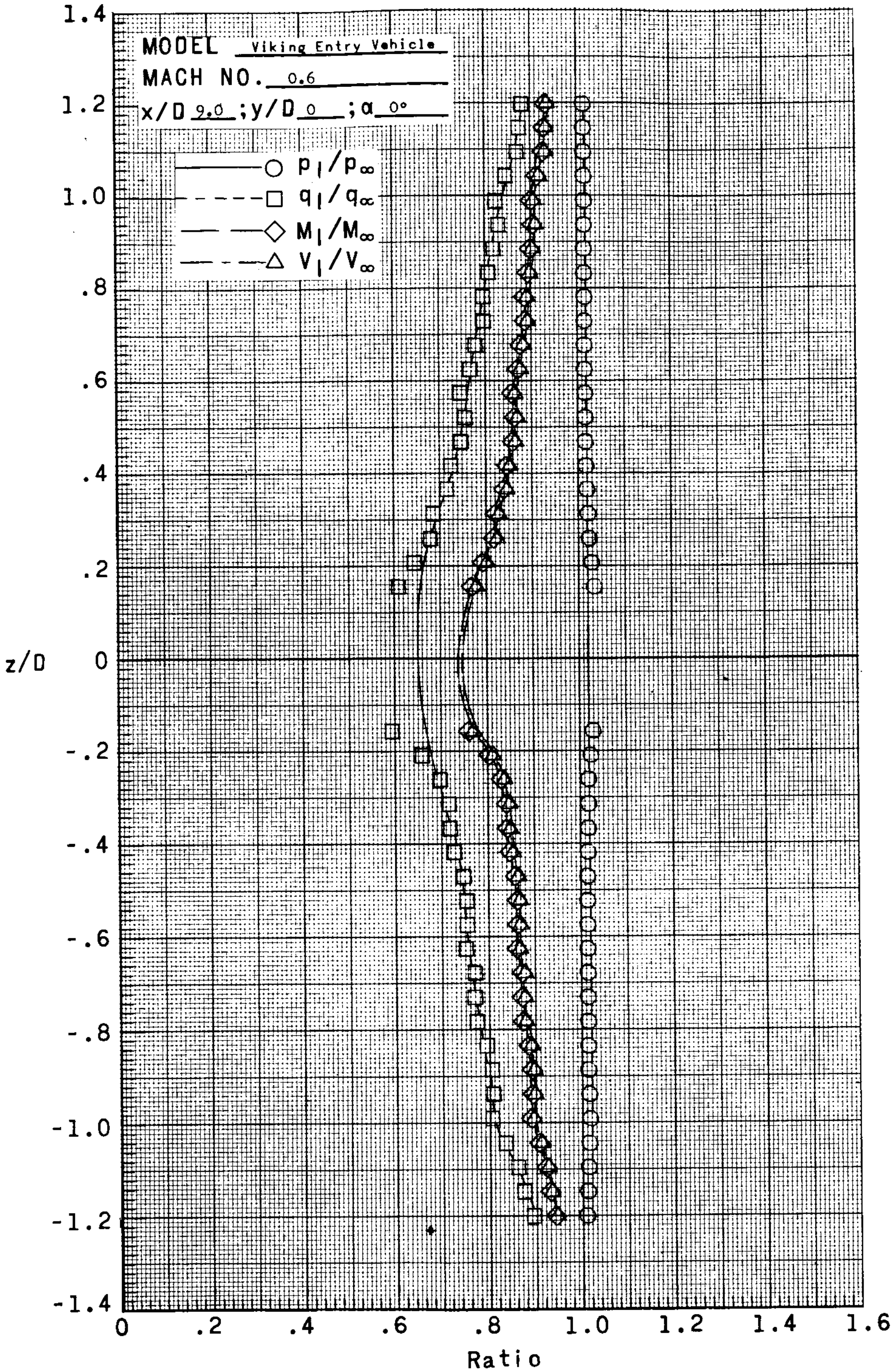
(e) x/D = 7.00.

Figure 7.- Continued.



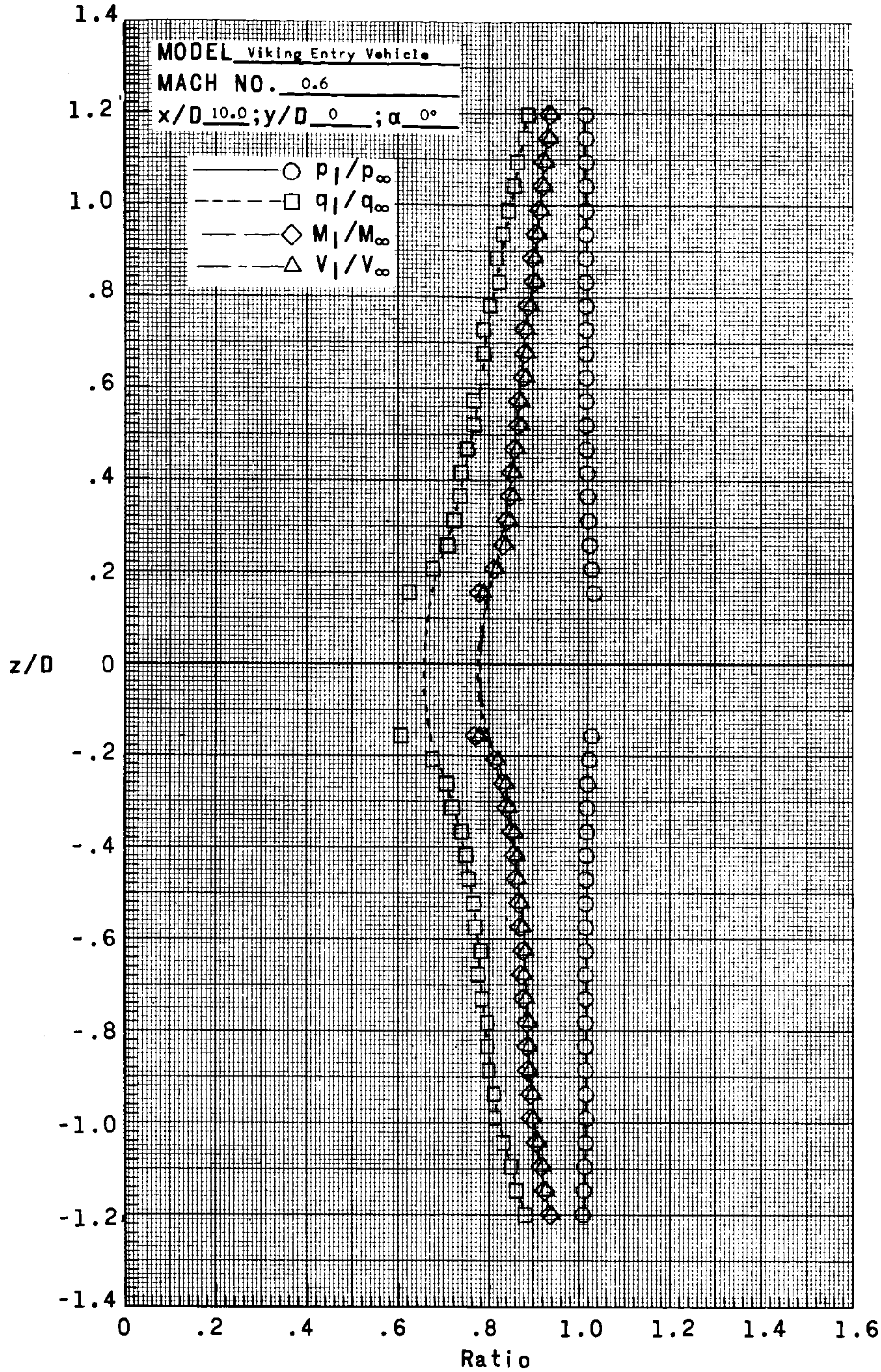
(f) x/D = 8.39.

Figure 7.- Continued.



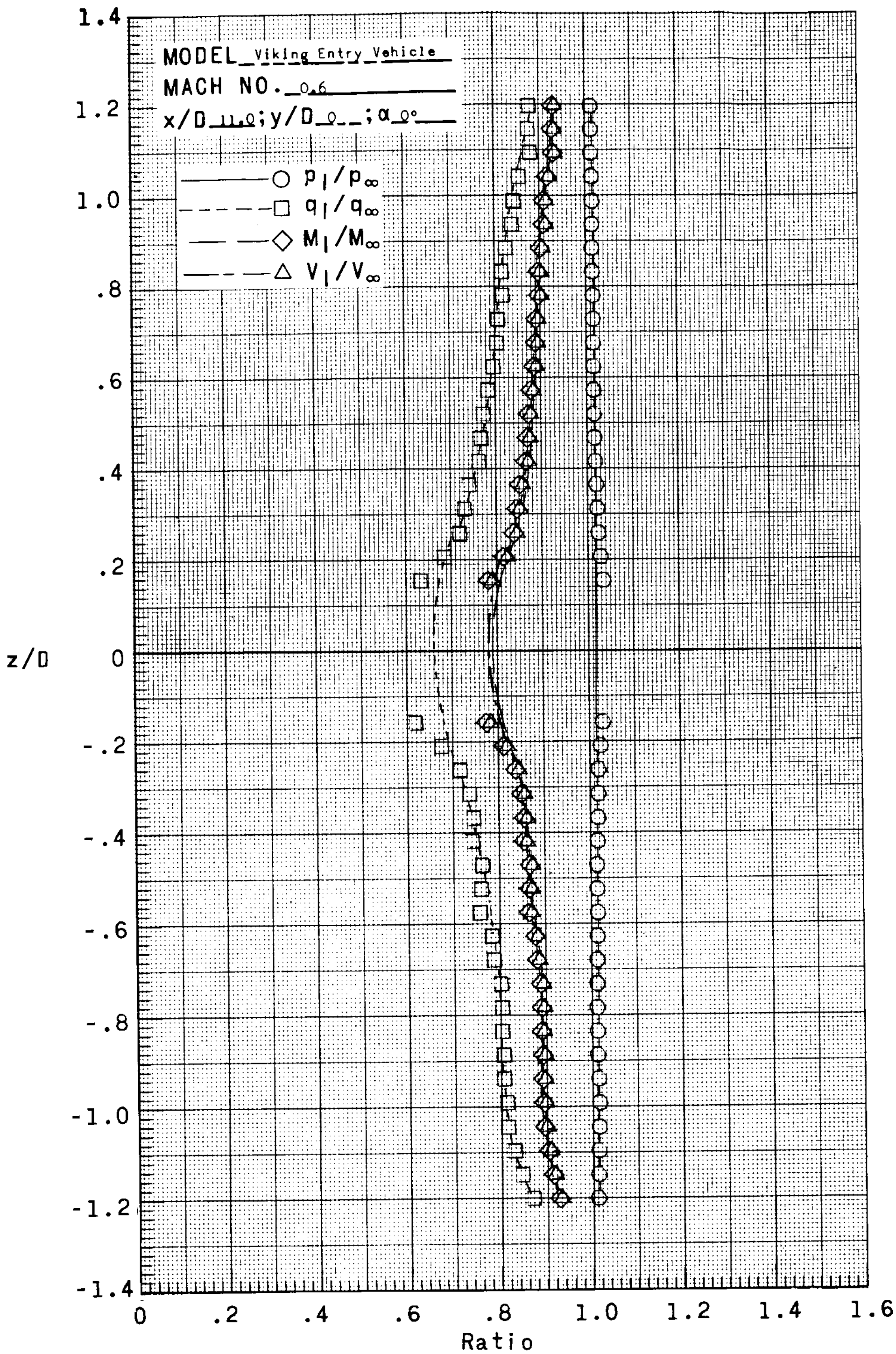
(g) x/D = 9.00.

Figure 7.- Continued.



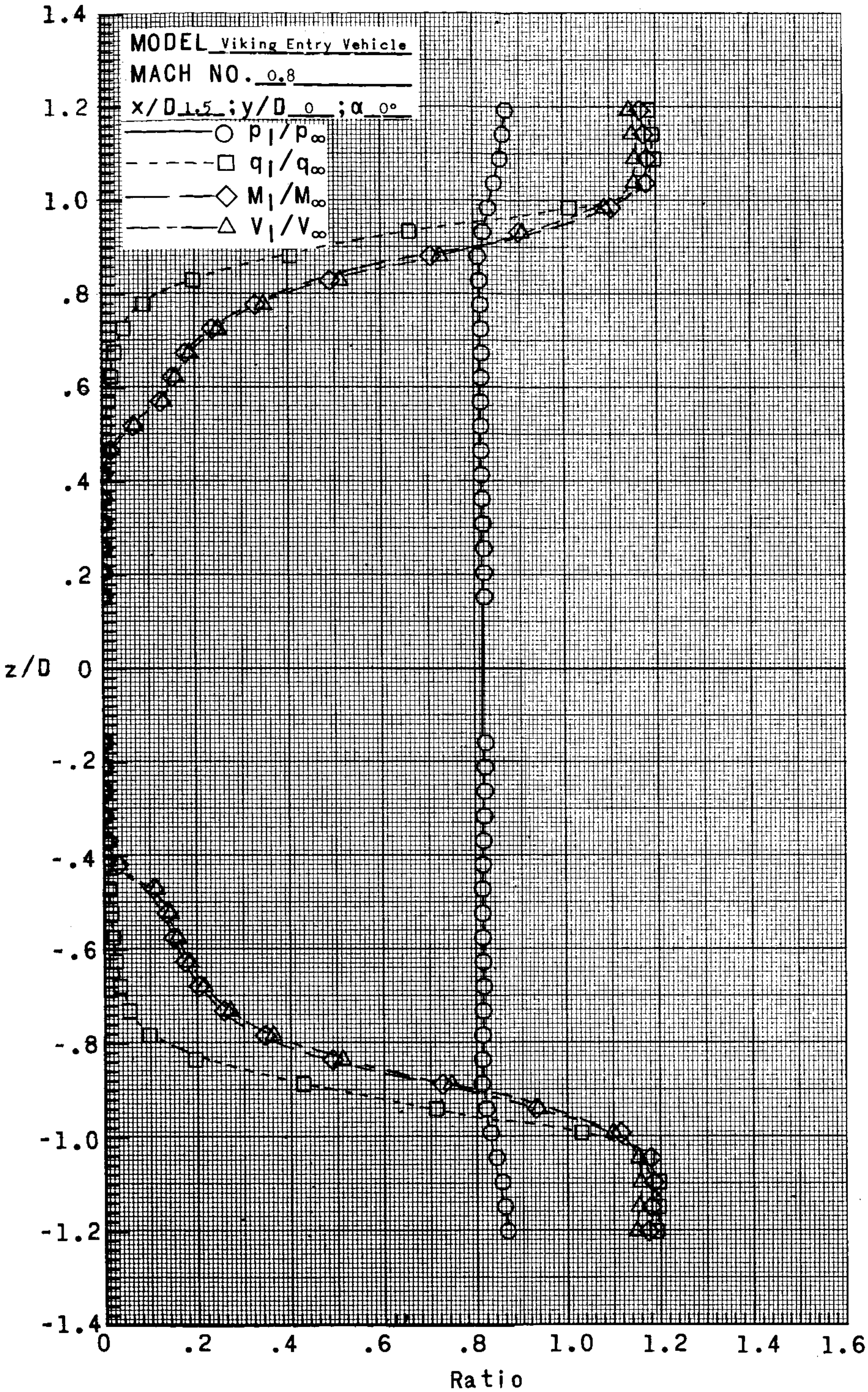
(h) x/D = 10.00.

Figure 7.- Continued.



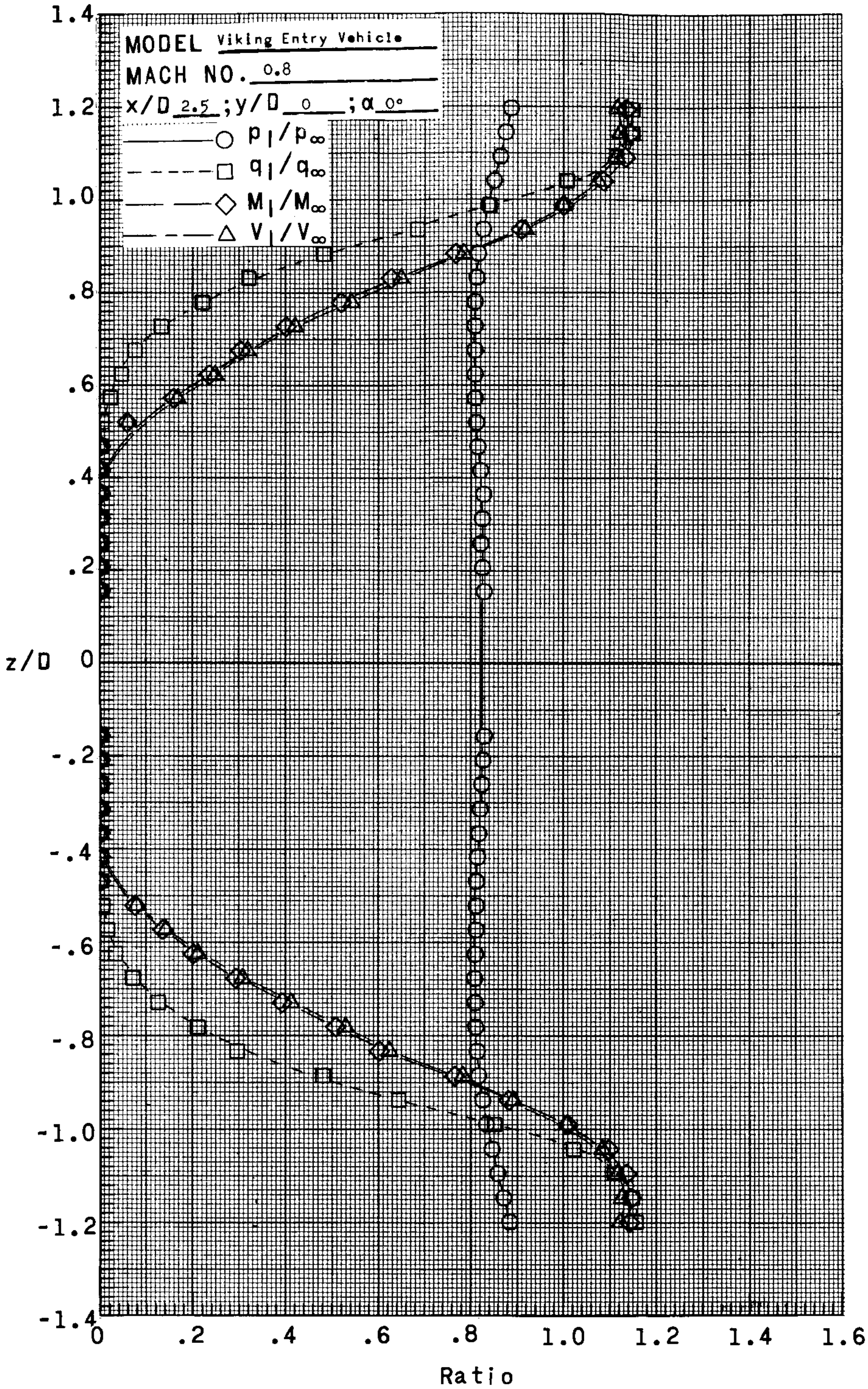
(i) x/D = 11.00.

Figure 7.- Concluded.



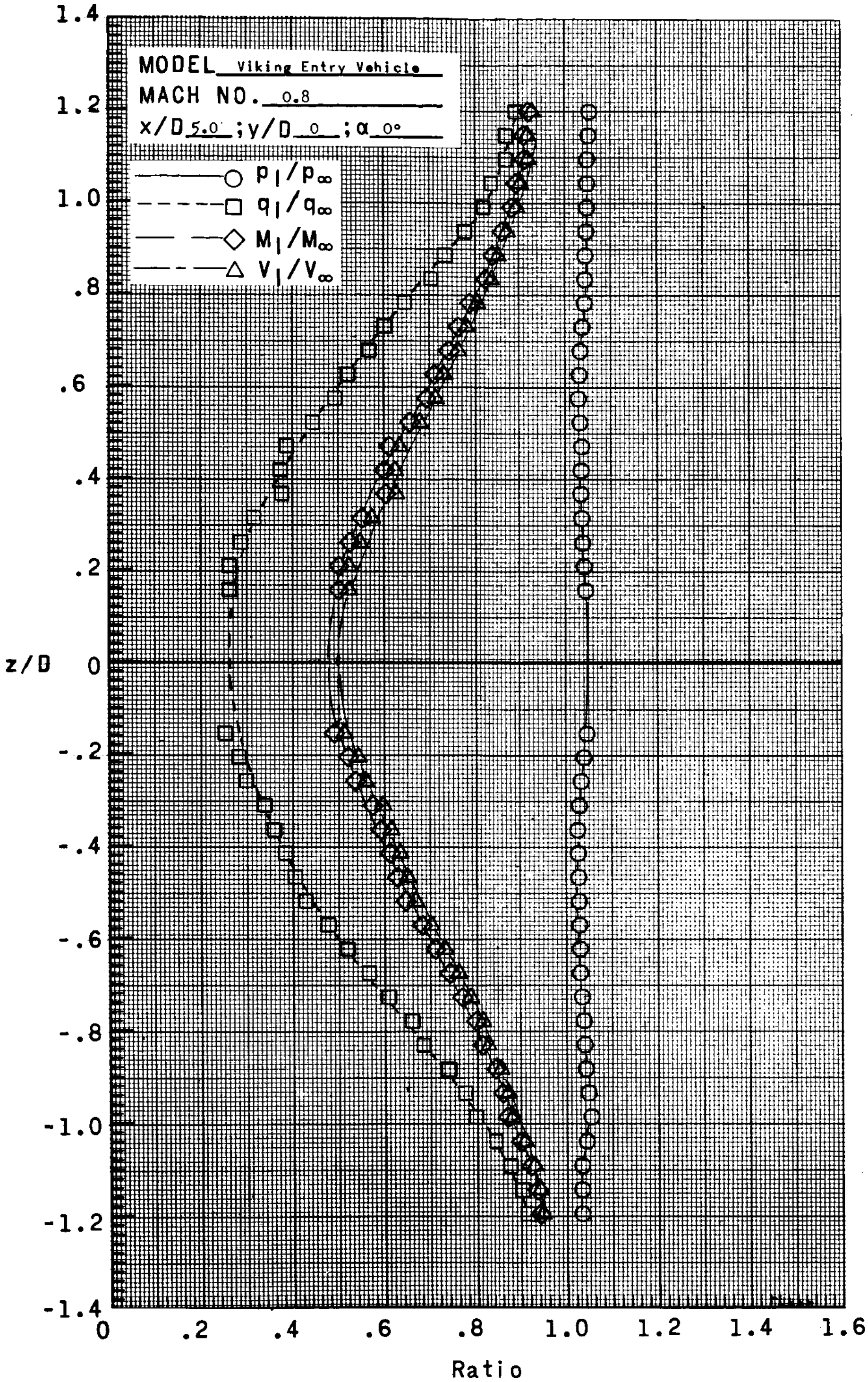
(a) x/D = 1.50.

Figure 8.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.80, y/D = 0, $\alpha = 0^o$, and Reynolds number of 12.30×10^6 per meter (3.75×10^6 per foot).



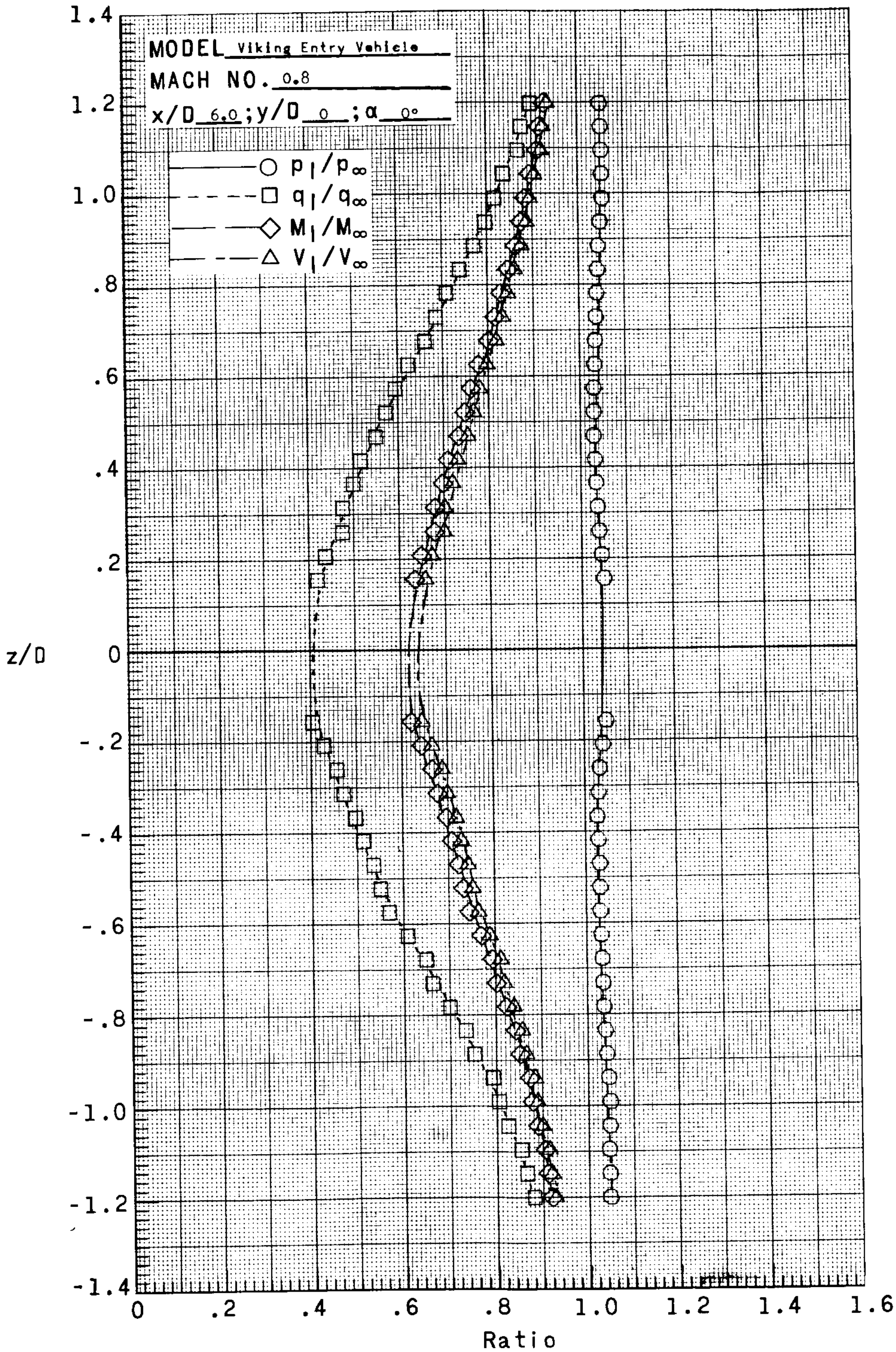
(b) x/D = 2.50.

Figure 8.- Continued.



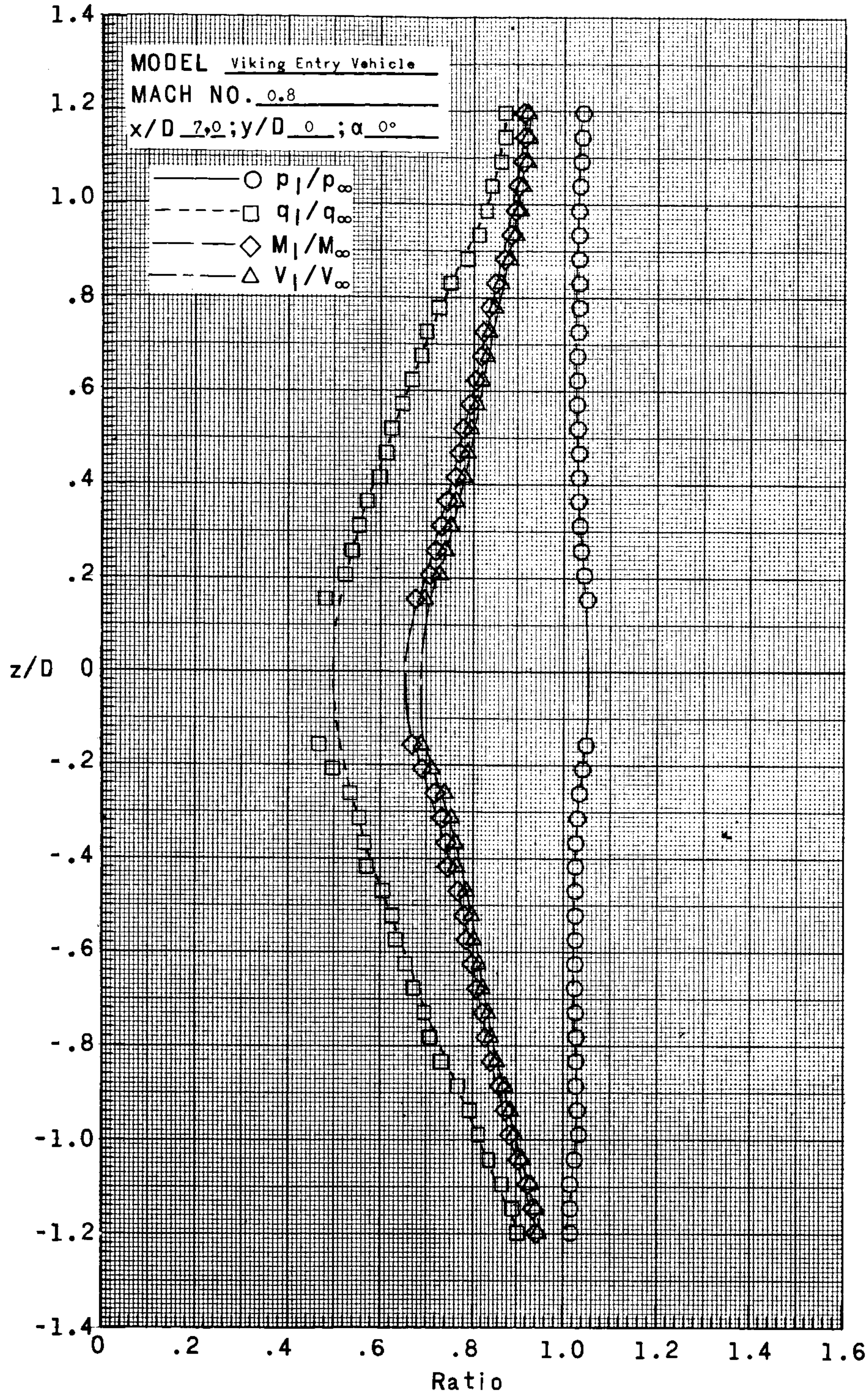
(c) x/D = 5.00.

Figure 8.- Continued.



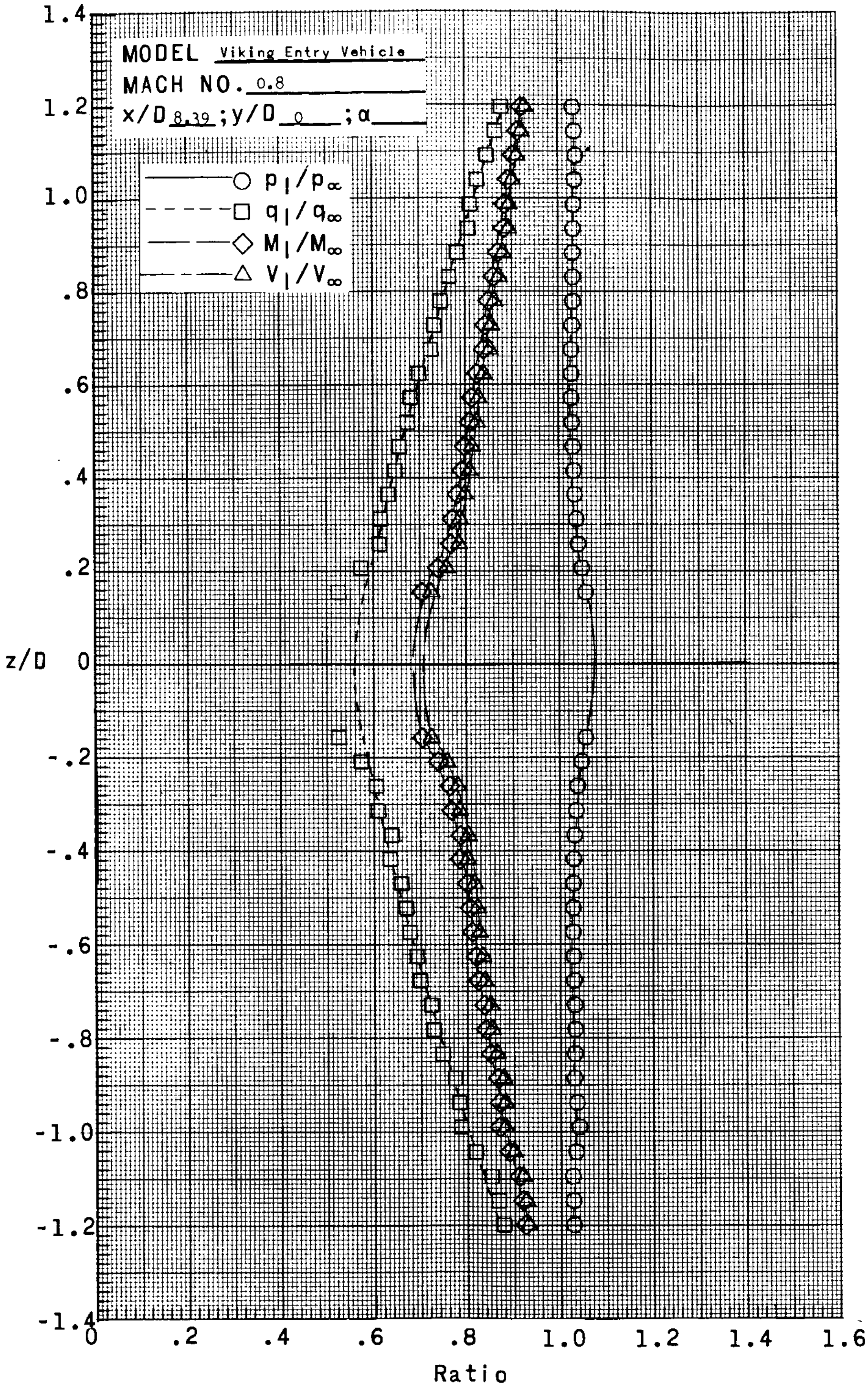
(d) x/D = 6.00.

Figure 8.- Continued.



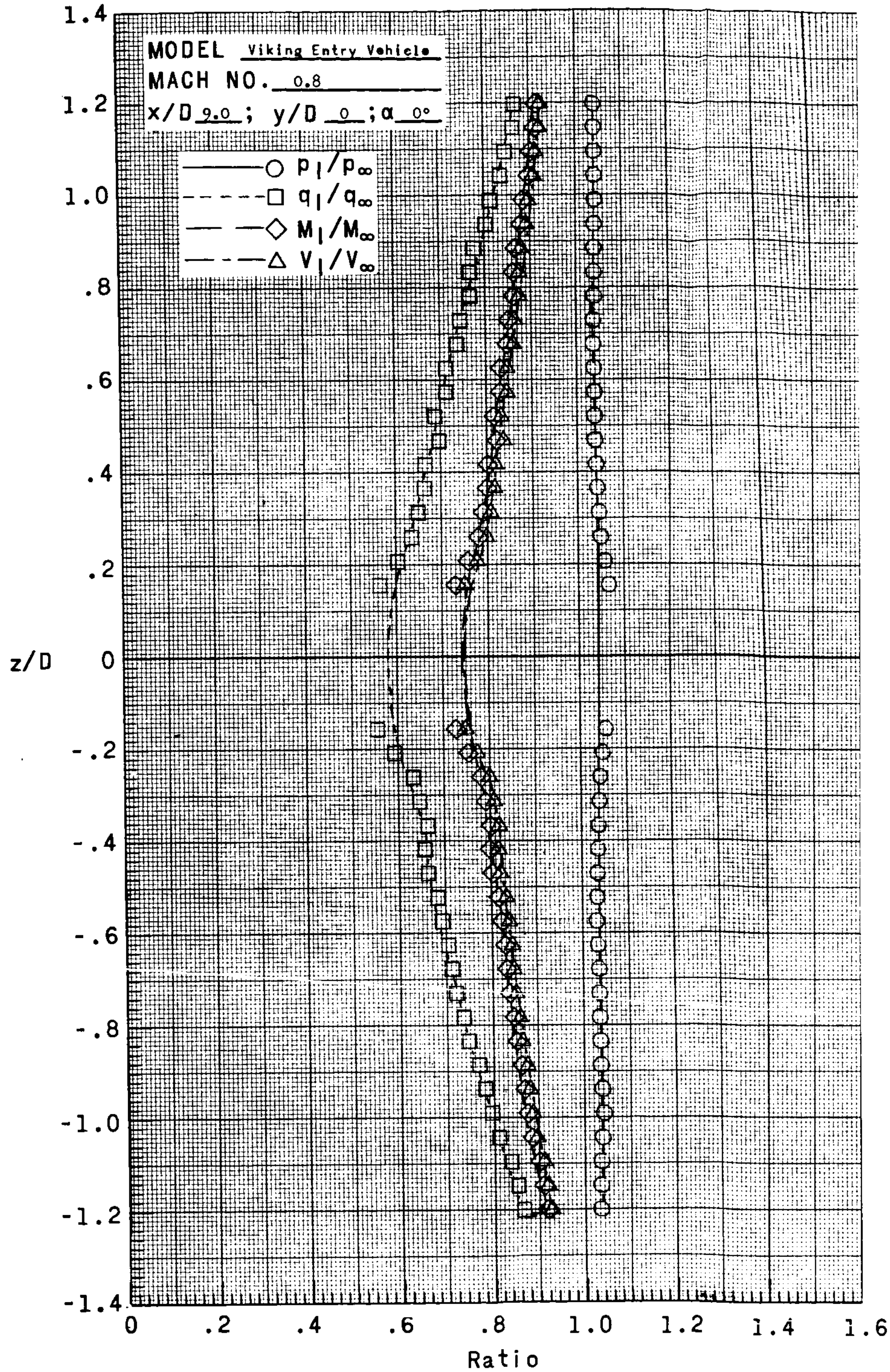
(e) x/D = 7.00.

Figure 8.- Continued.



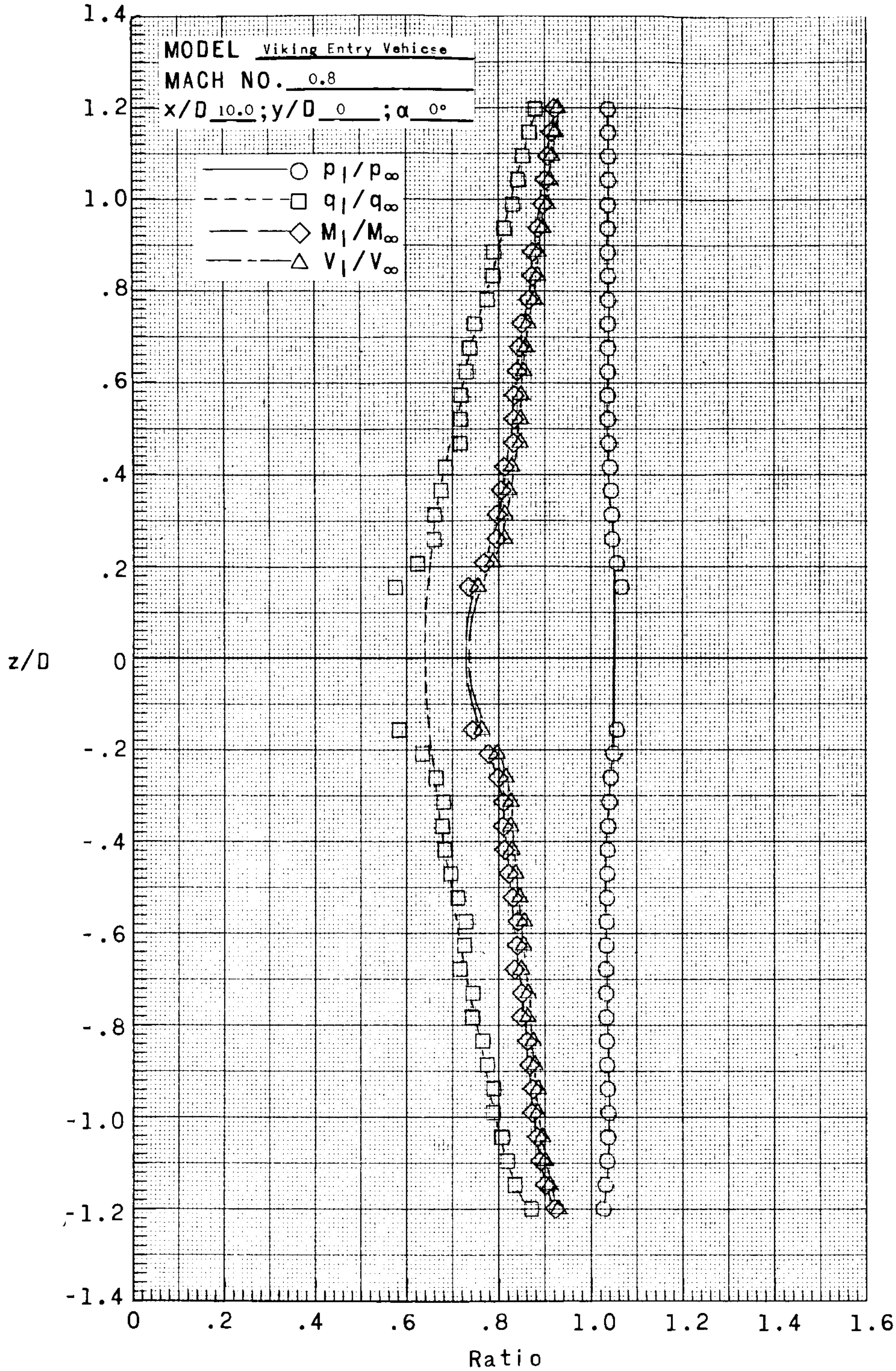
(f) x/D = 8.39.

Figure 8.- Continued.



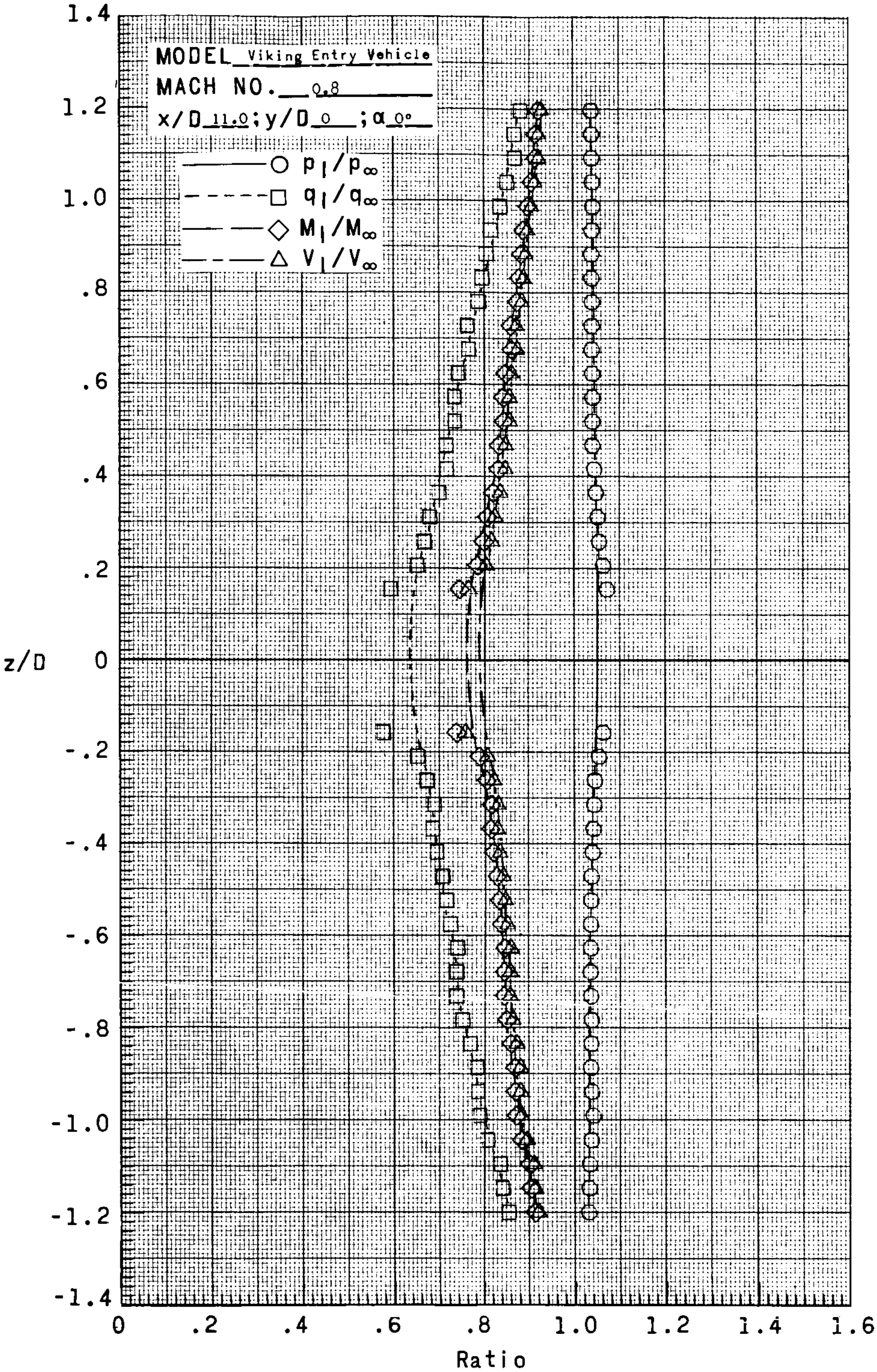
(g) x/D = 9.00.

Figure 8.- Continued.



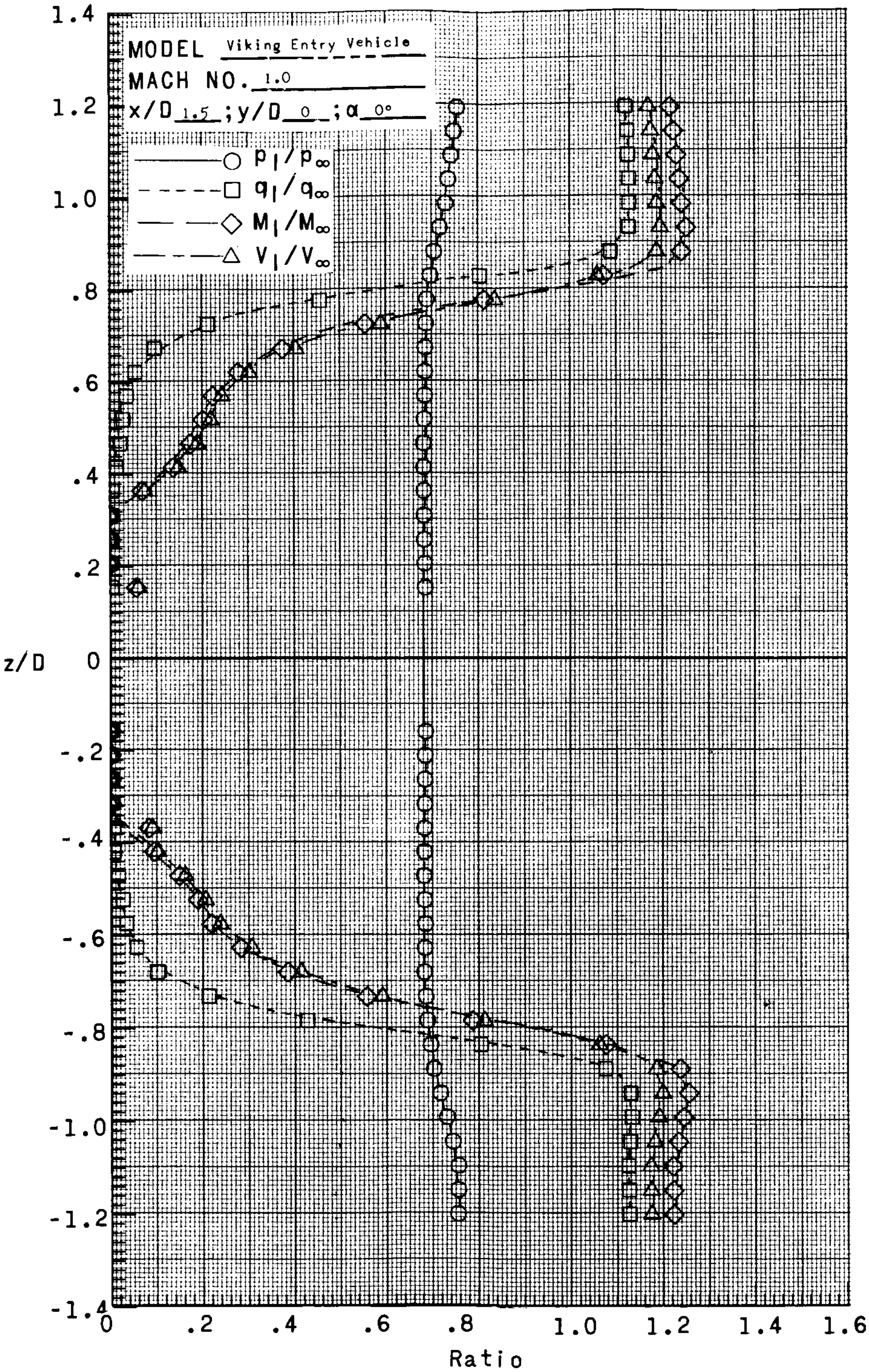
(h) x/D = 10.00.

Figure 8.- Continued.



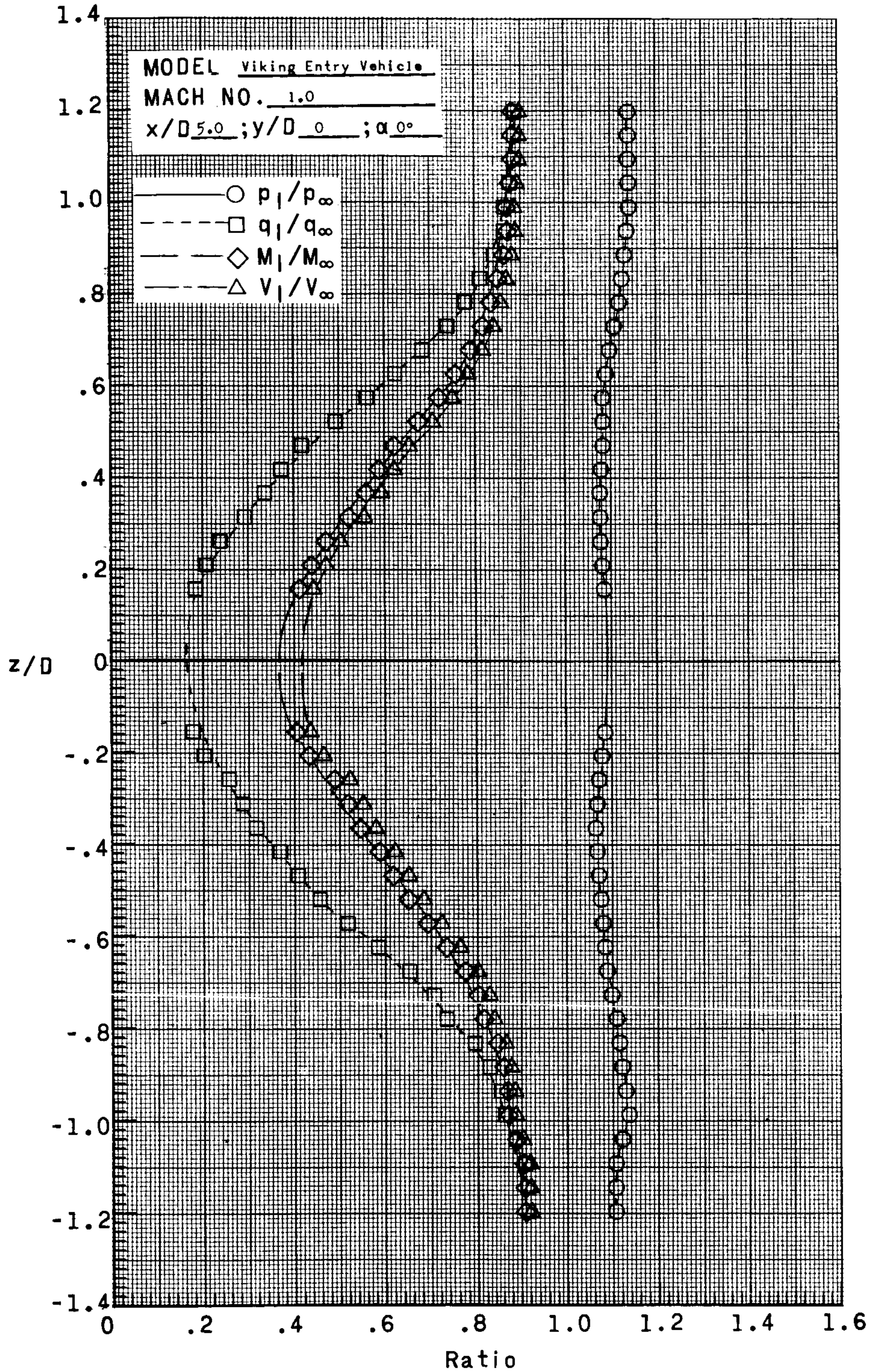
(i) x/D = 11.00.

Figure 8.- Concluded.



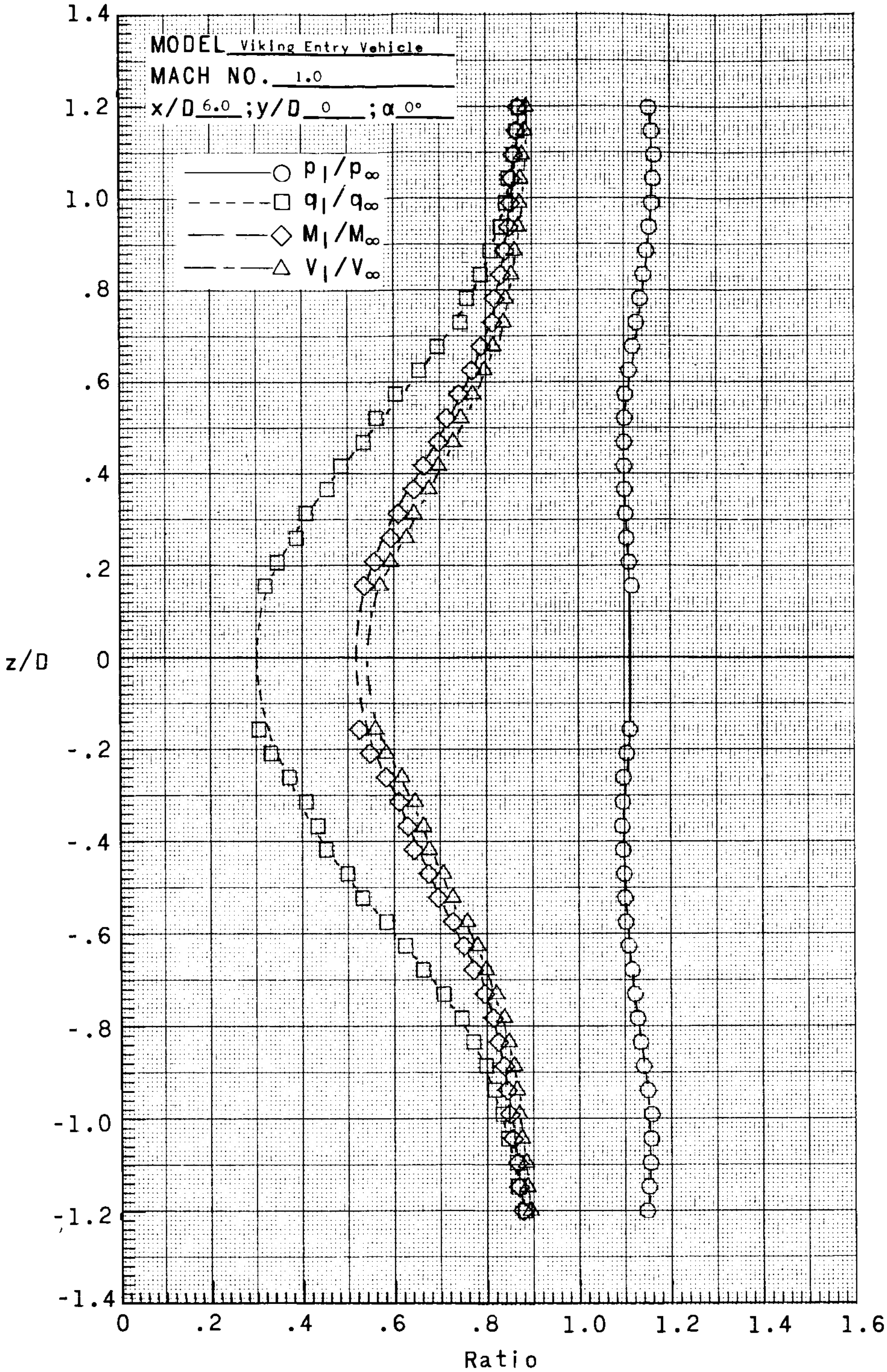
(a) x/D = 1.50.

Figure 9.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 1.00, y/D = 0, $\alpha = 0^o$, and Reynolds number of 13.75×10^6 per meter (4.19×10^6 per foot).



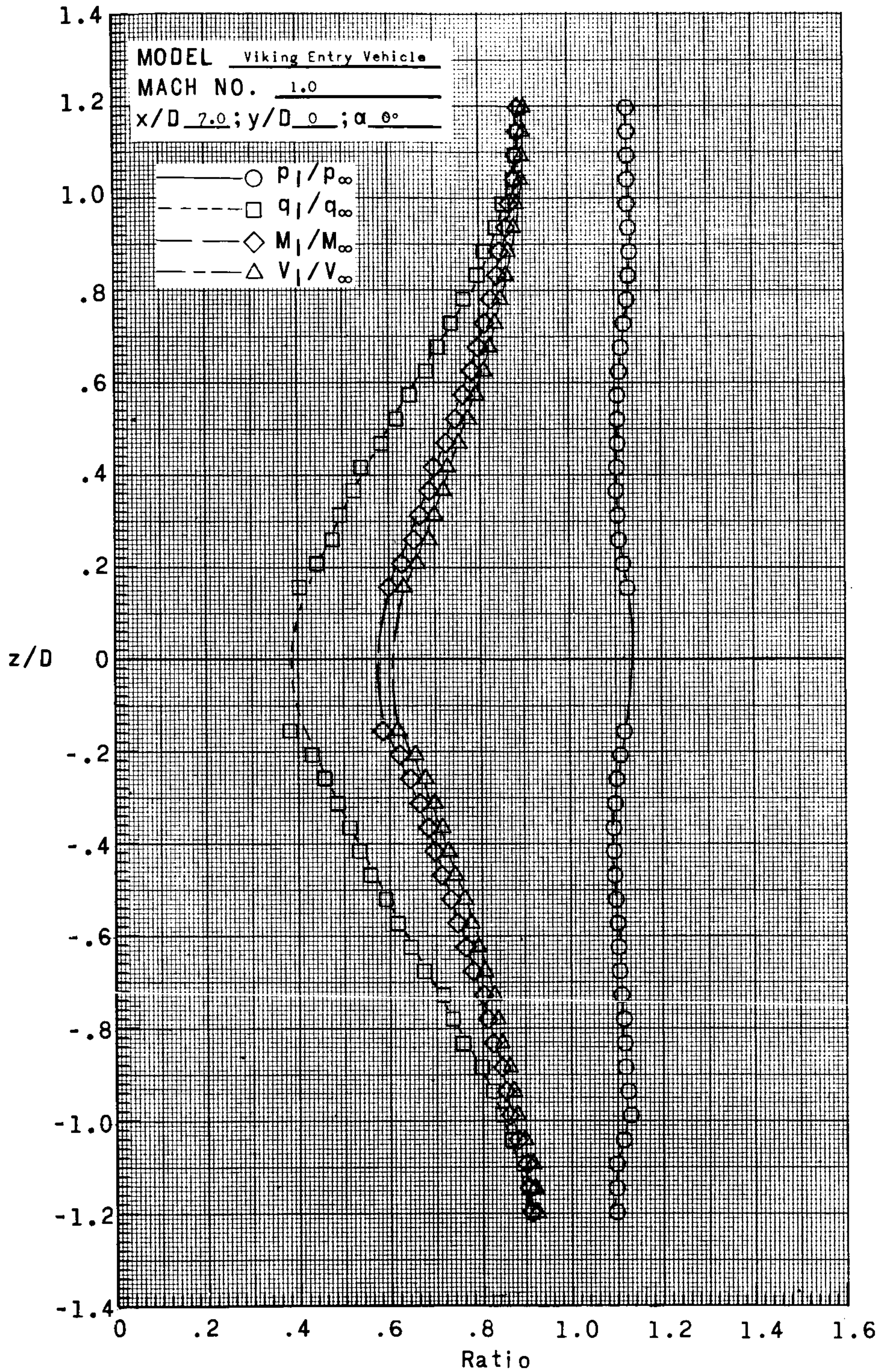
(b) x/D = 5.00.

Figure 9.- Continued.



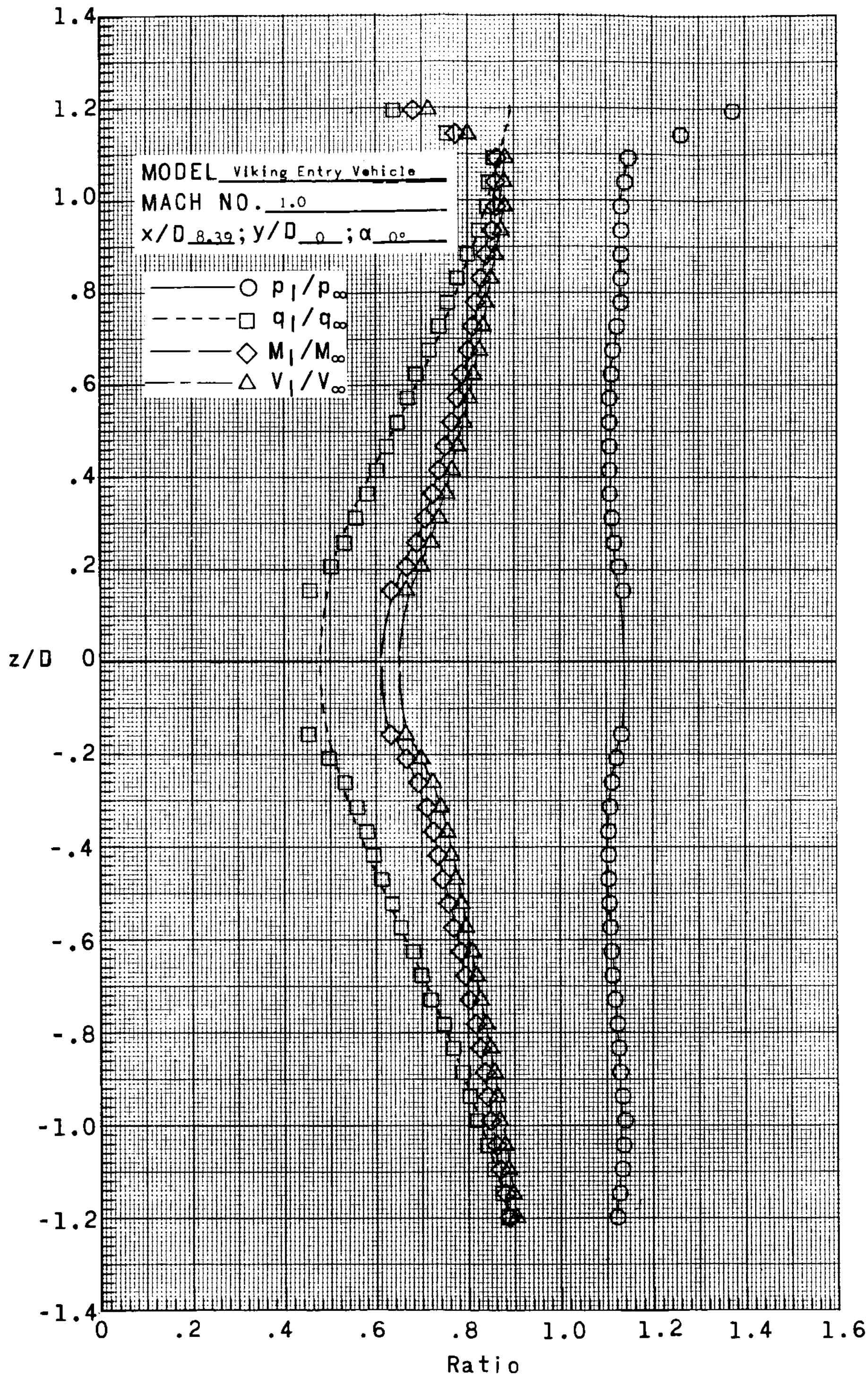
(c) x/D = 6.00.

Figure 9.- Continued.



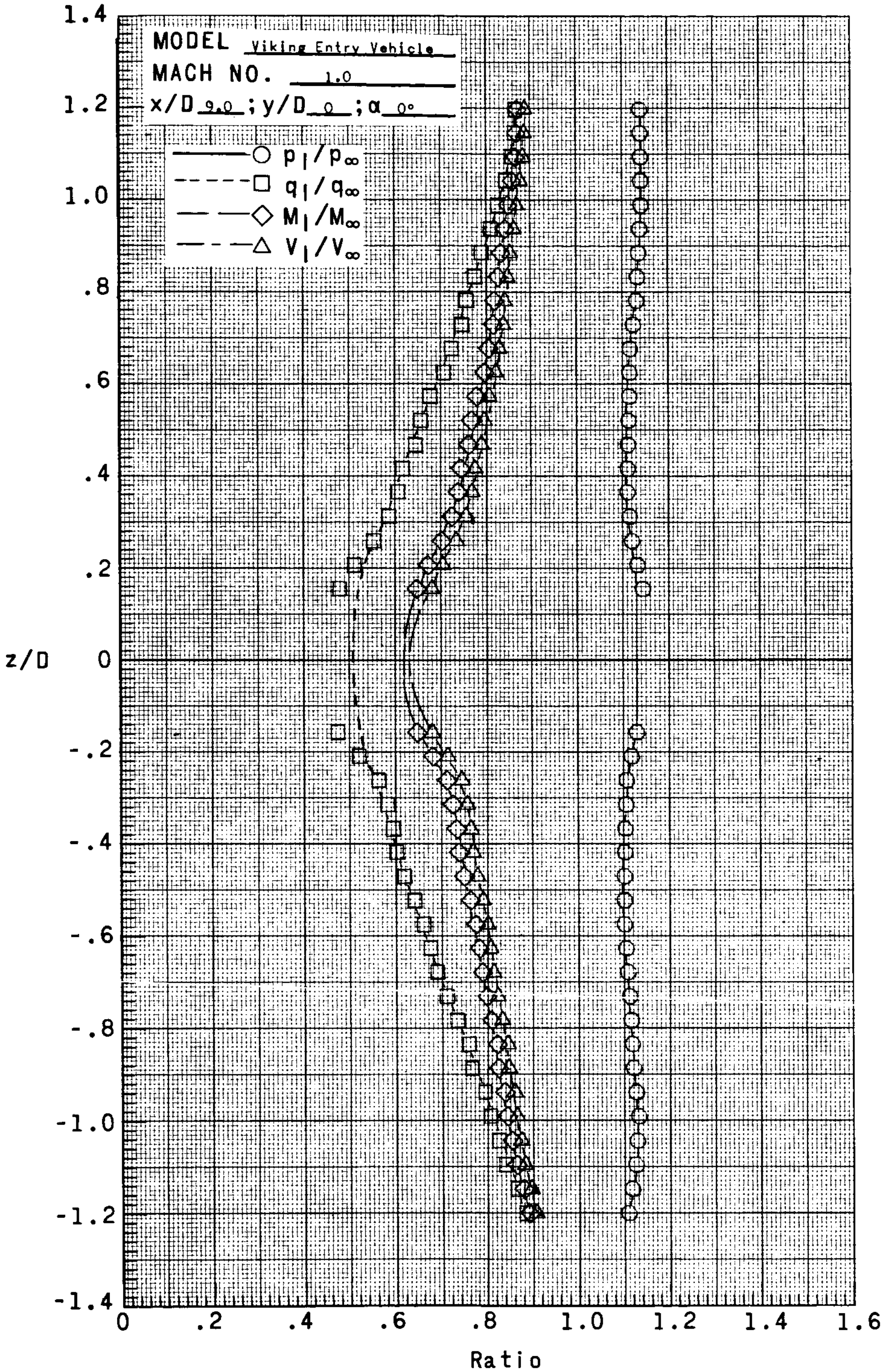
(d) x/D = 7.00.

Figure 9.- Continued.



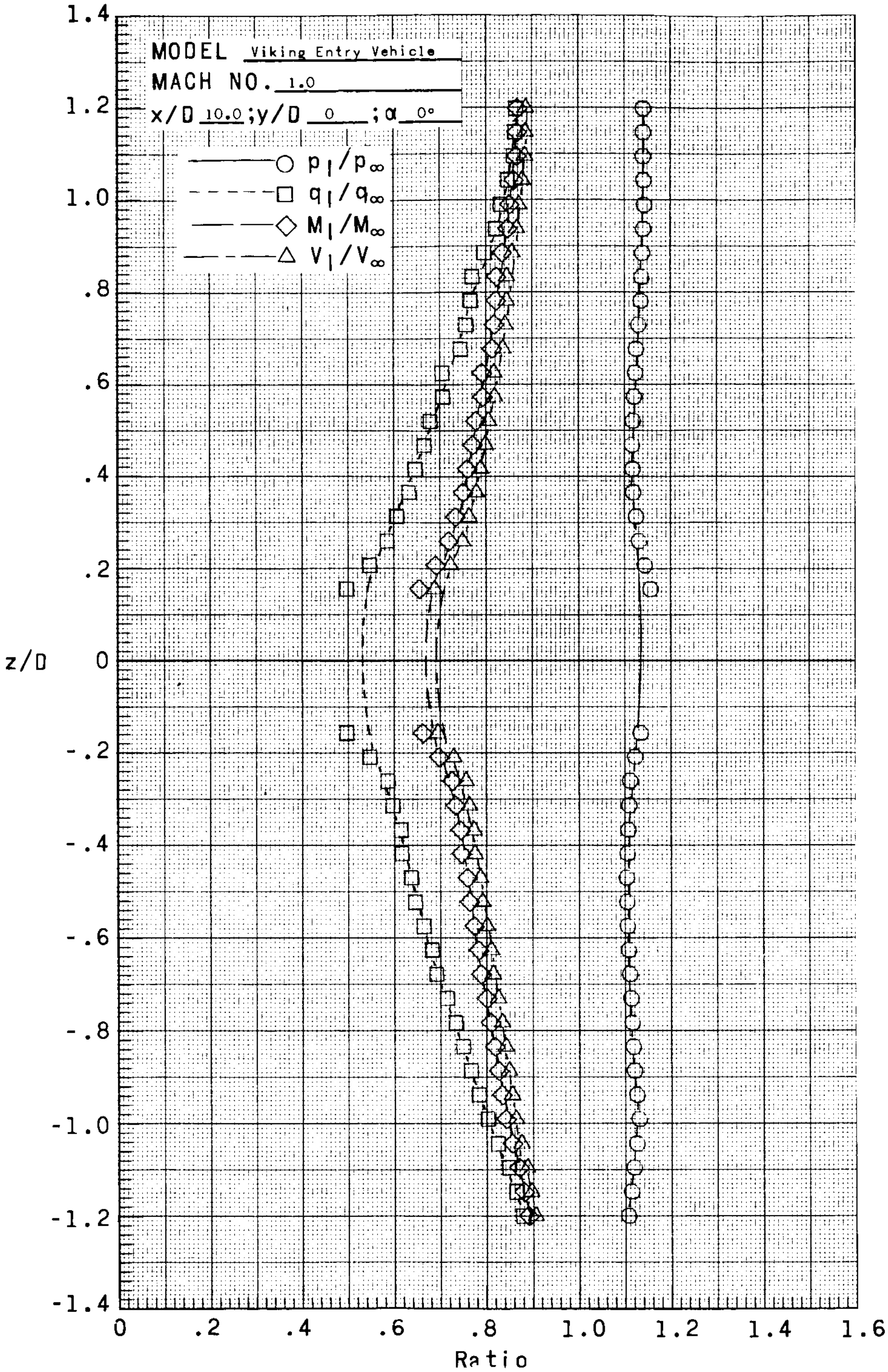
(e) x/D = 8.39.

Figure 9.- Continued.



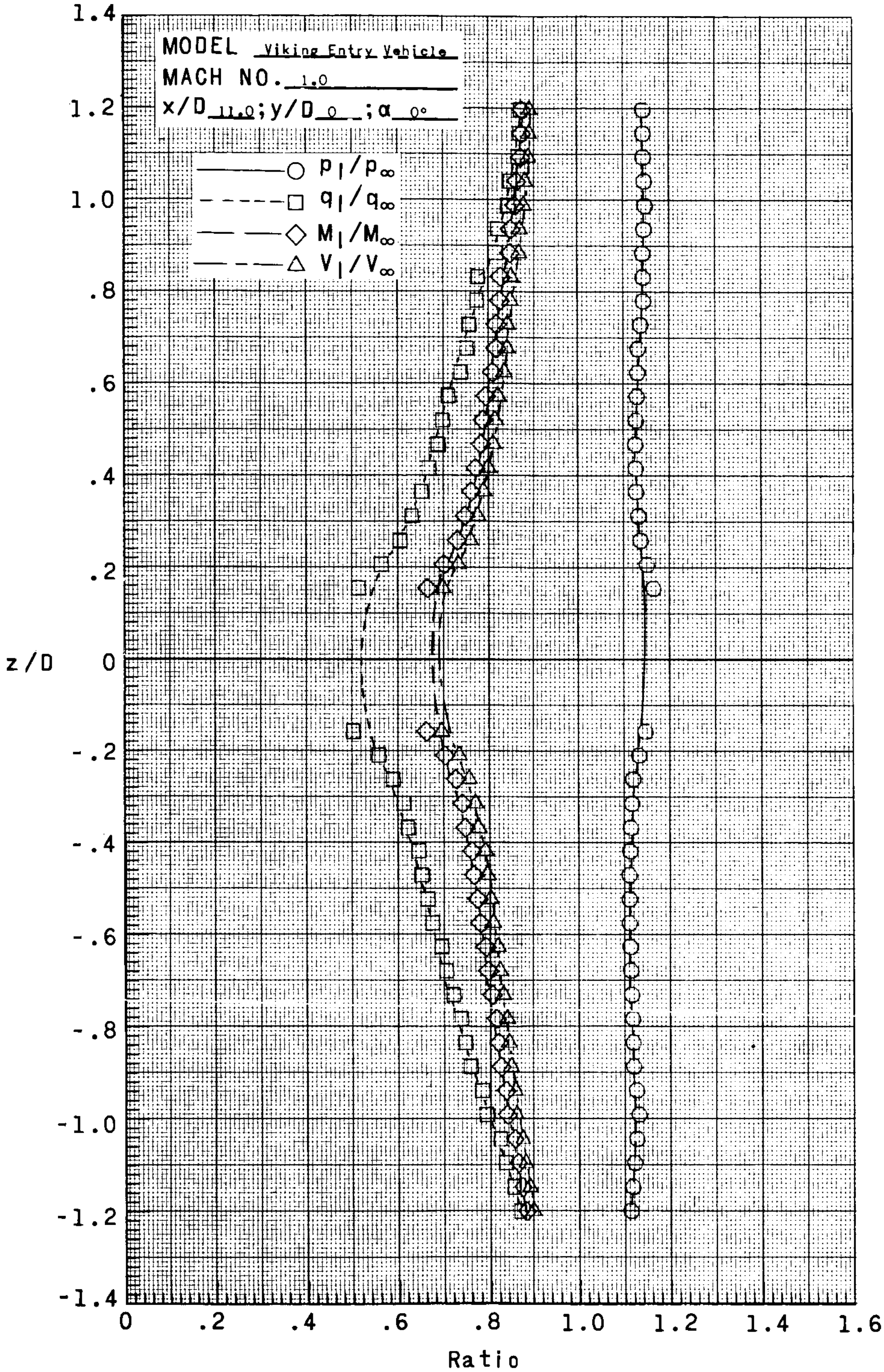
(f) x/D = 9.00.

Figure 9.- Continued.



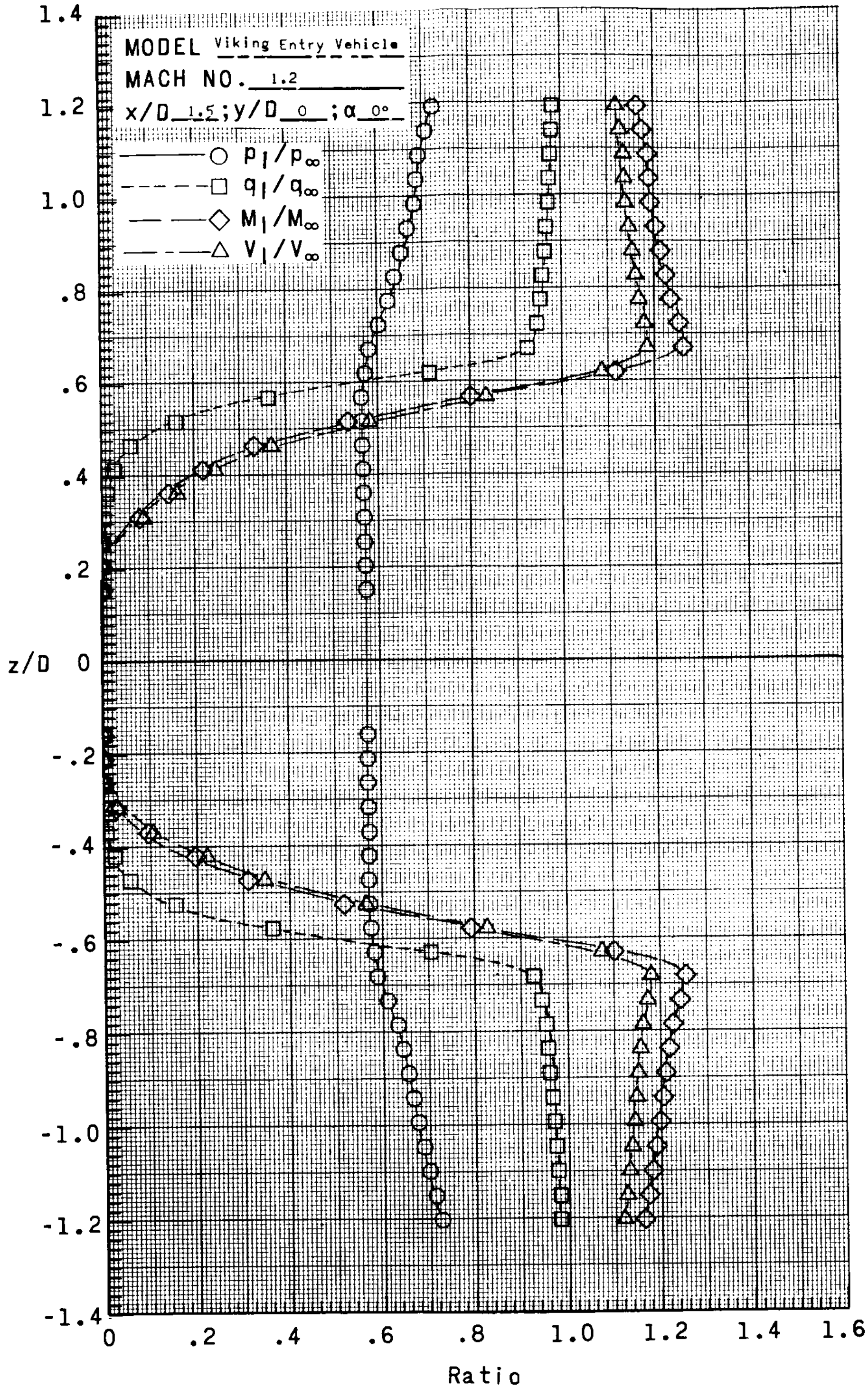
(g) x/D = 10.00.

Figure 9.- Continued.



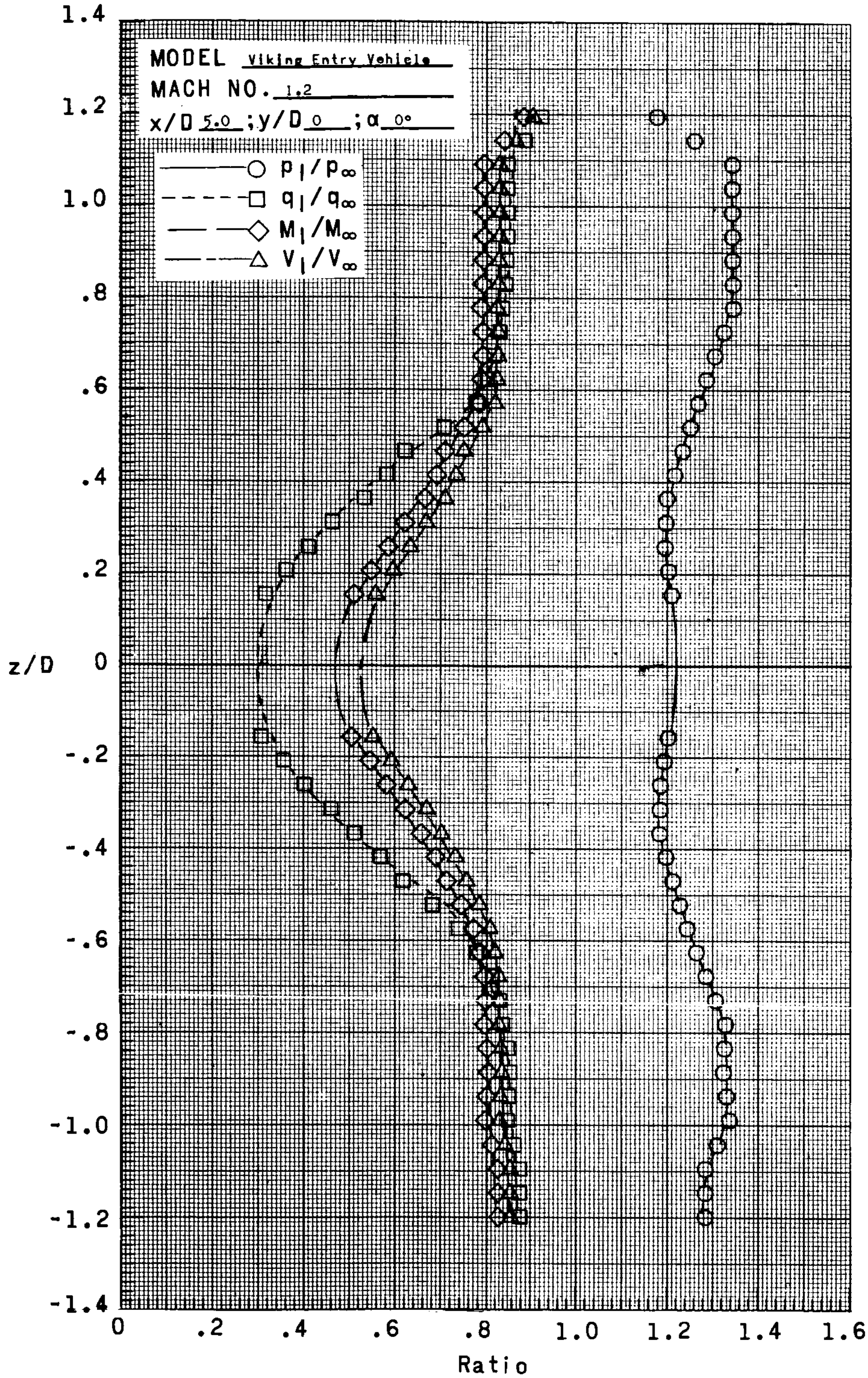
(h) x/D = 11.00.

Figure 9.- Concluded.



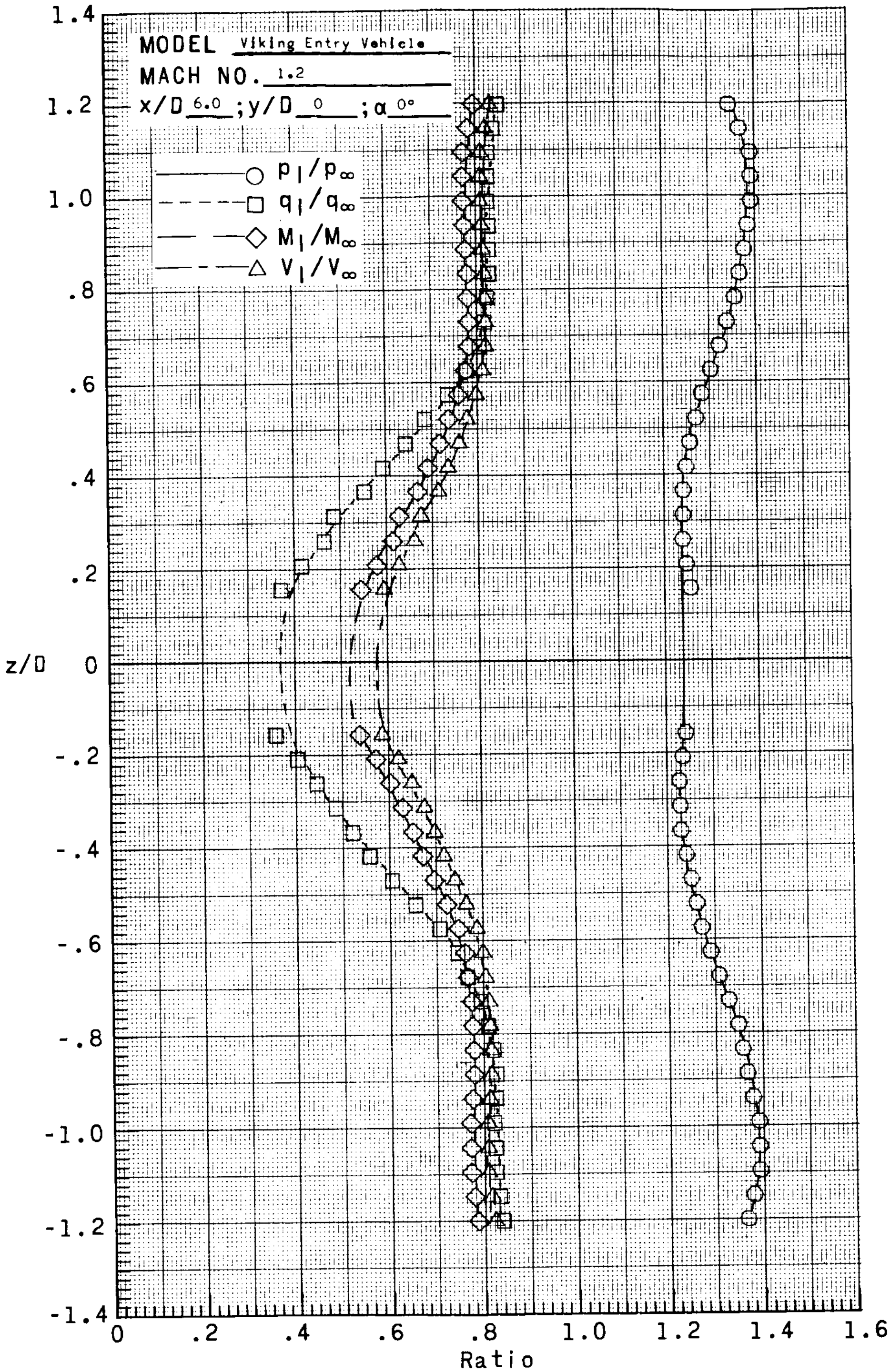
(a) $x/D = 1.50$.

Figure 10.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 1.20, $y/D = 0$, $\alpha = 0^o$, and Reynolds number of 13.80×10^6 per meter (4.22×10^6 per foot).



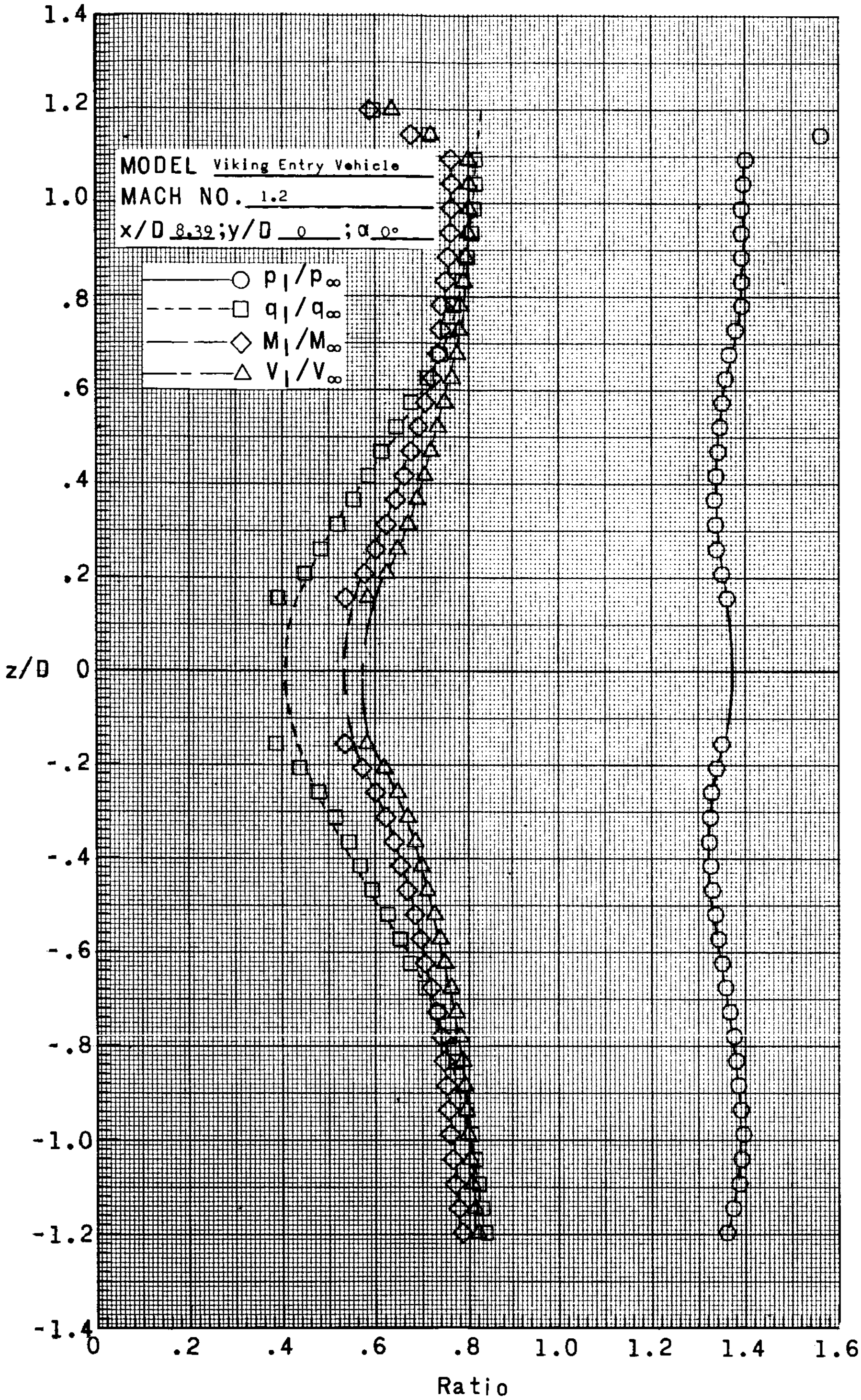
(b) x/D = 5.00.

Figure 10.- Continued.



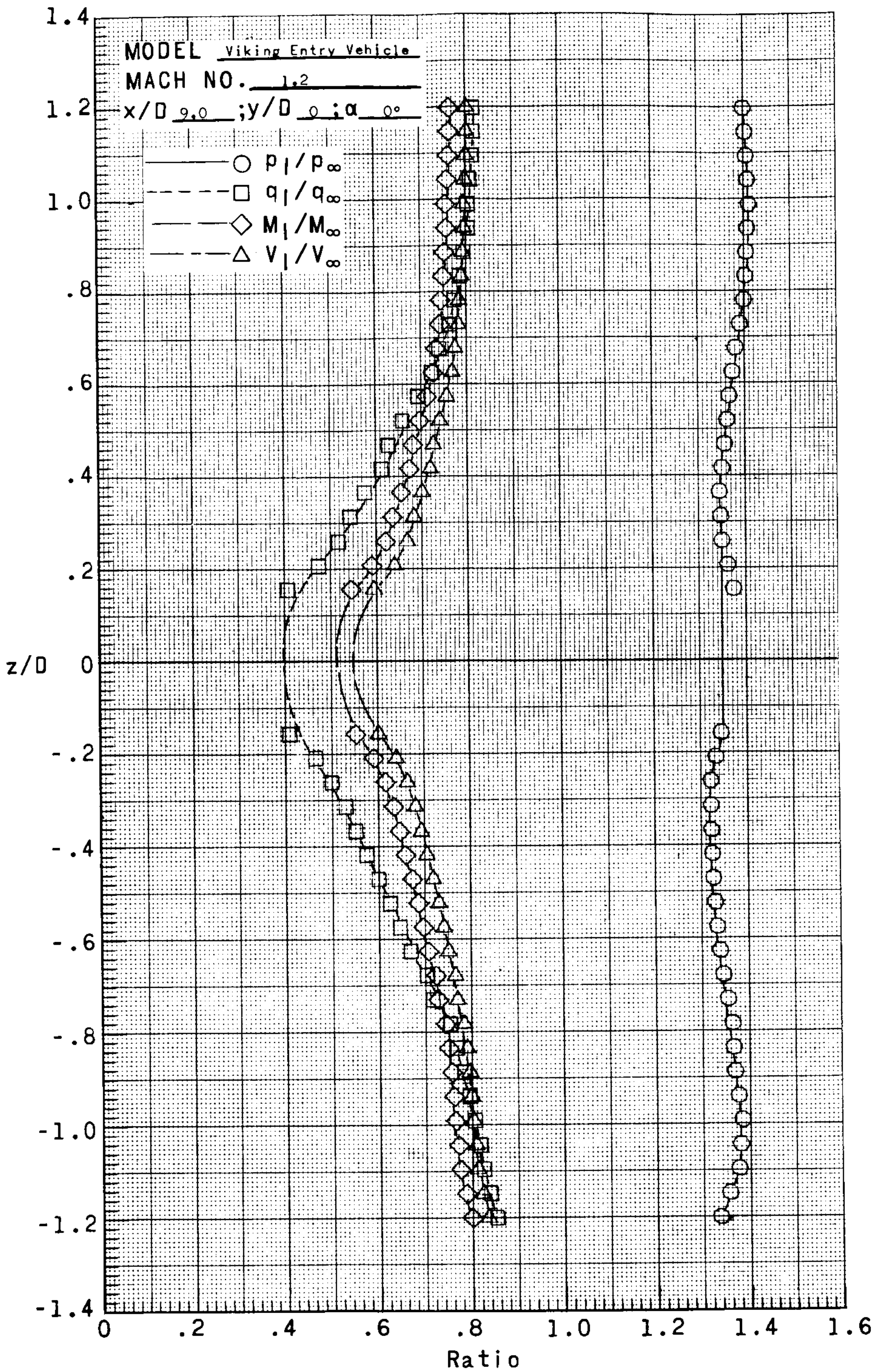
(c) x/D = 6.00.

Figure 10.- Continued.



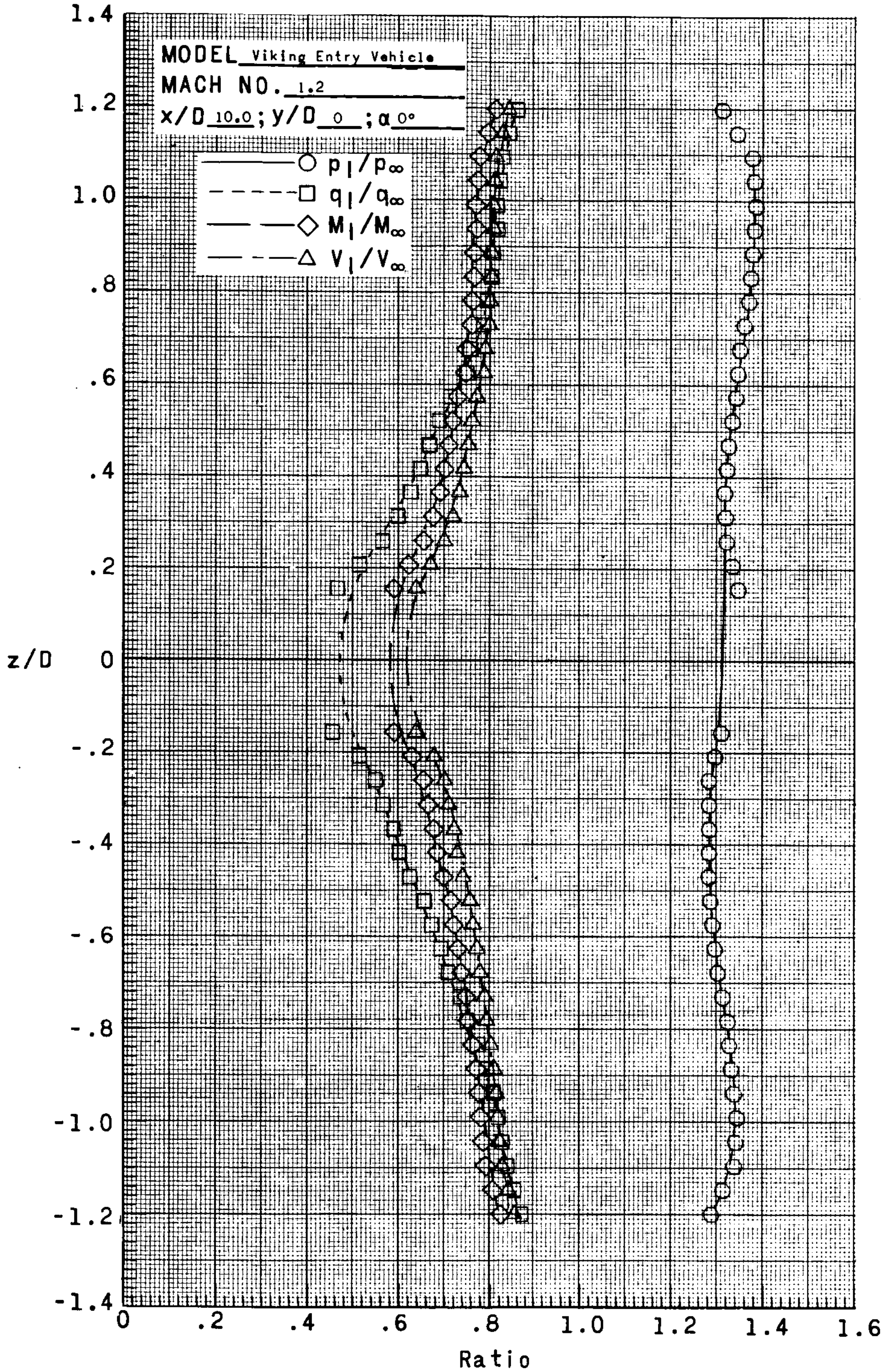
(d) x/D = 8.39.

Figure 10.- Continued.



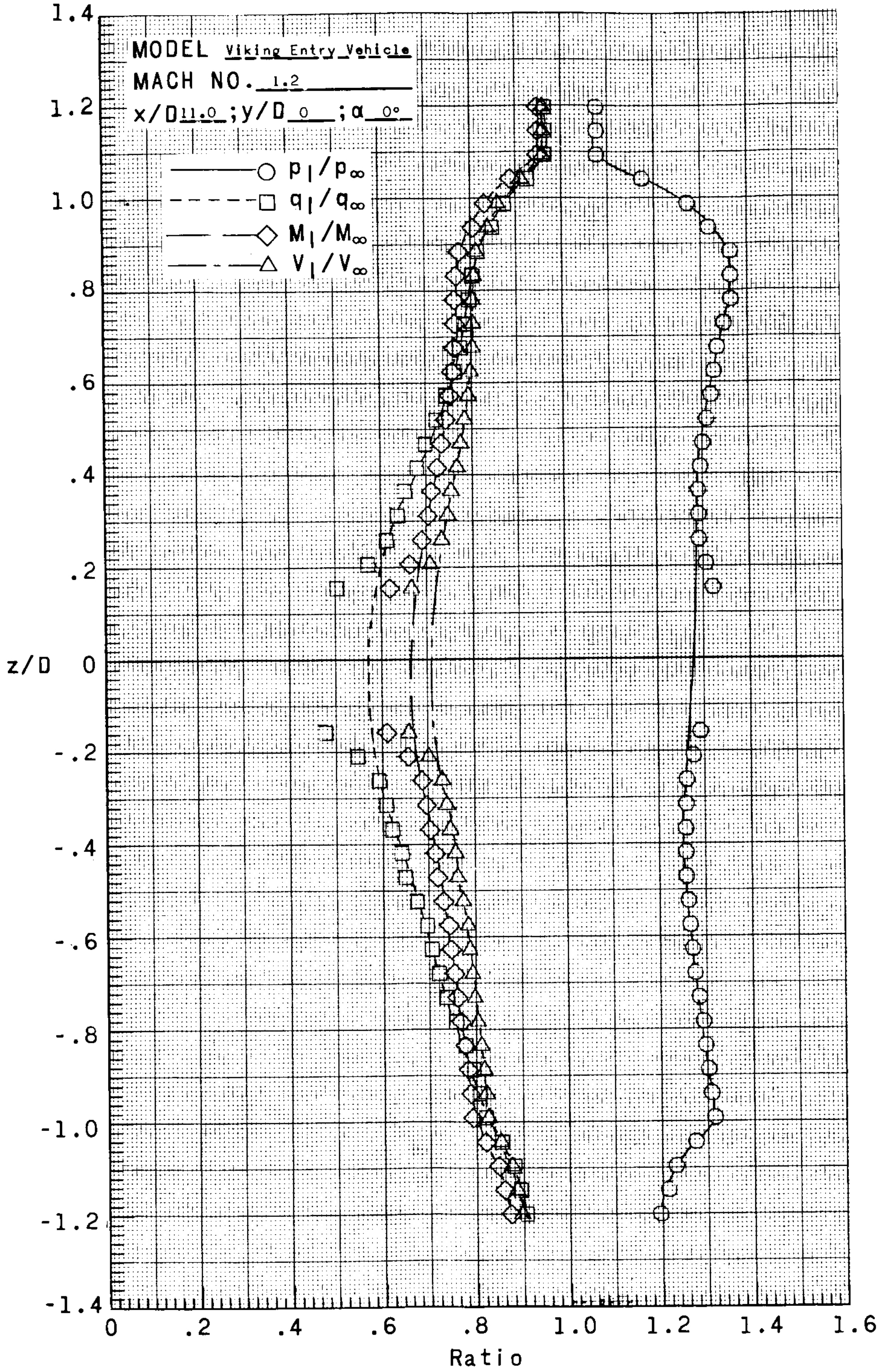
(e) x/D = 9.00.

Figure 10.- Continued.



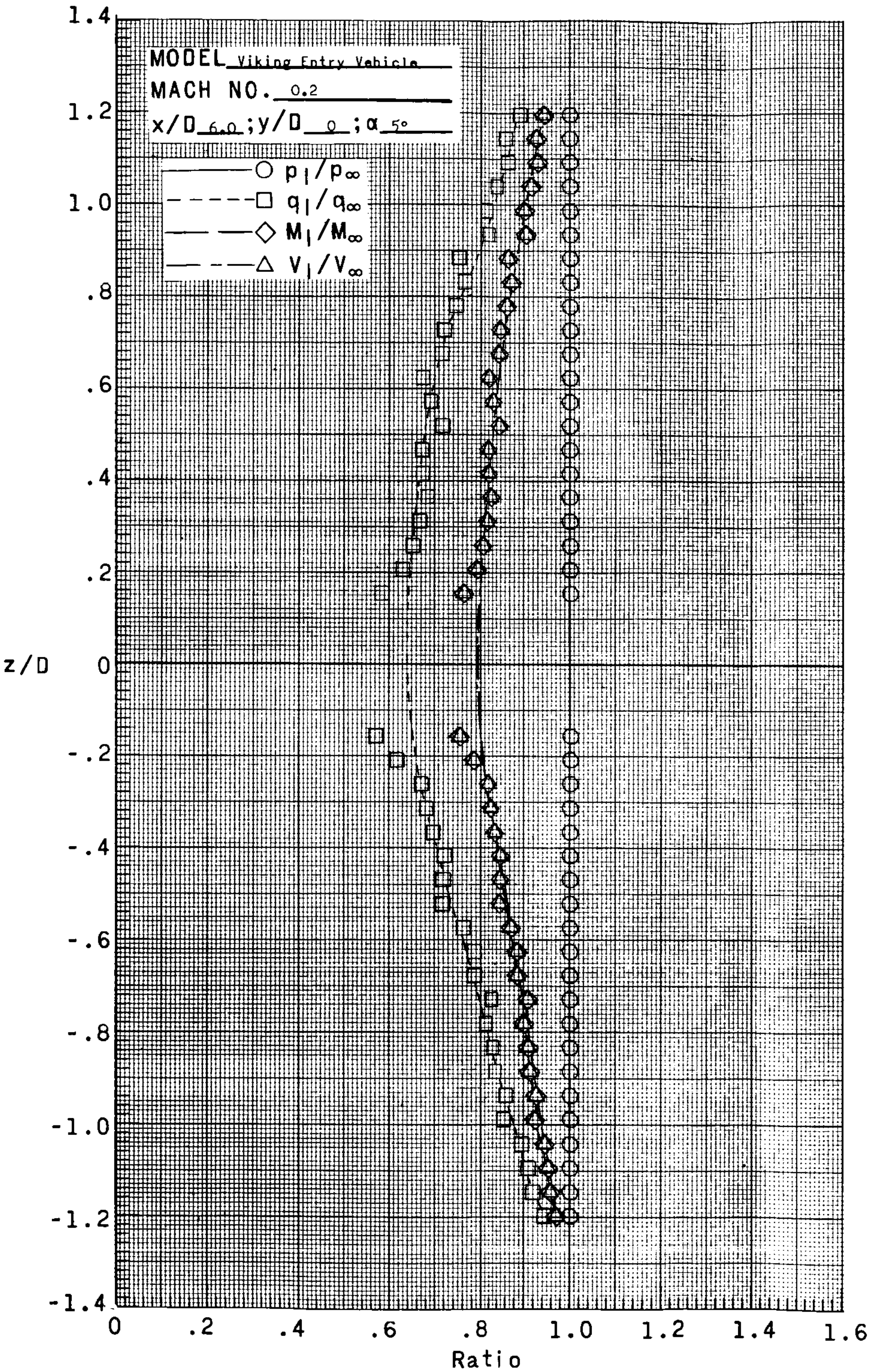
(f) x/D = 10.00.

Figure 10.- Continued.



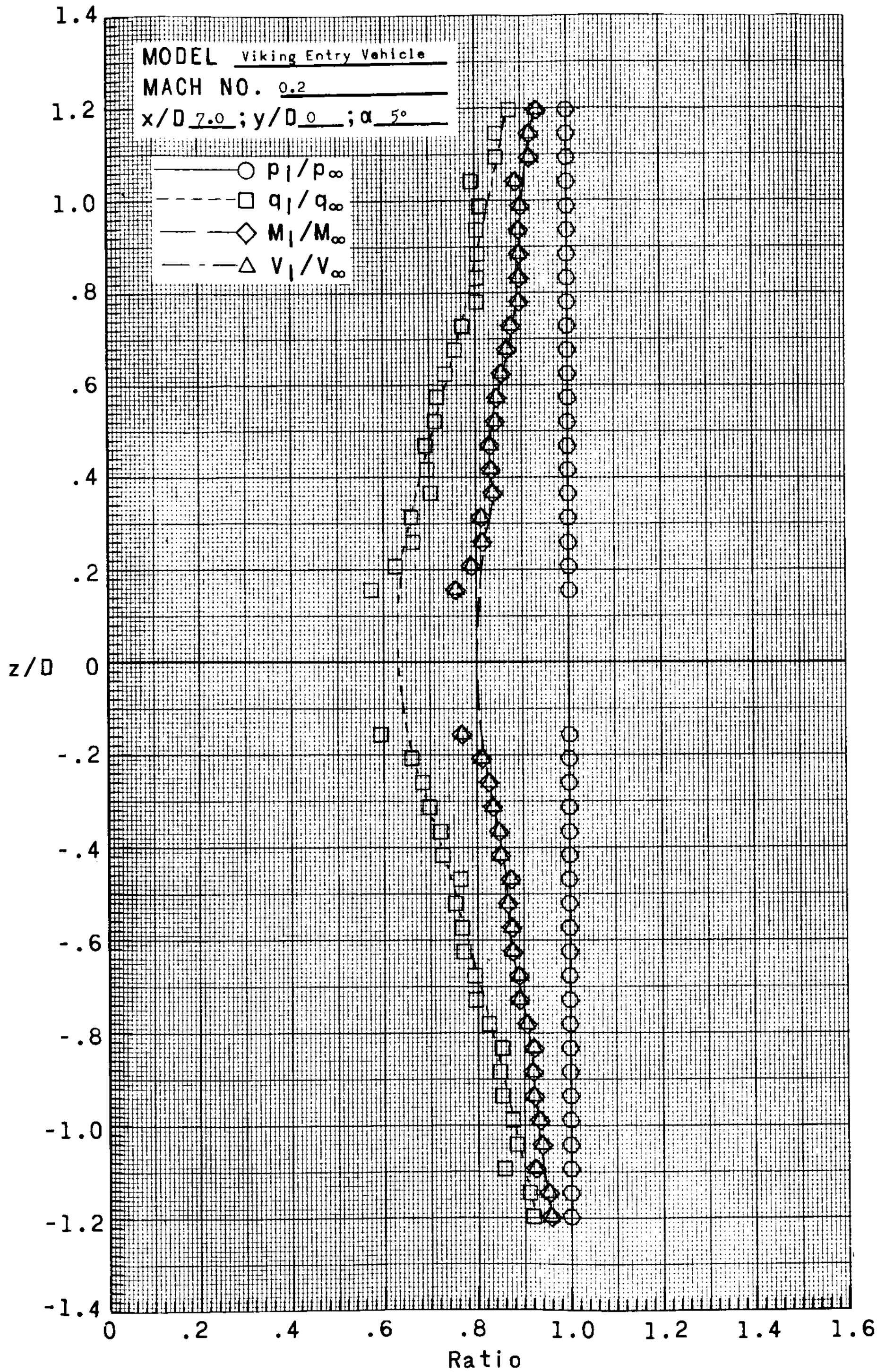
(g) x/D = 11.00.

Figure 10.- Concluded.



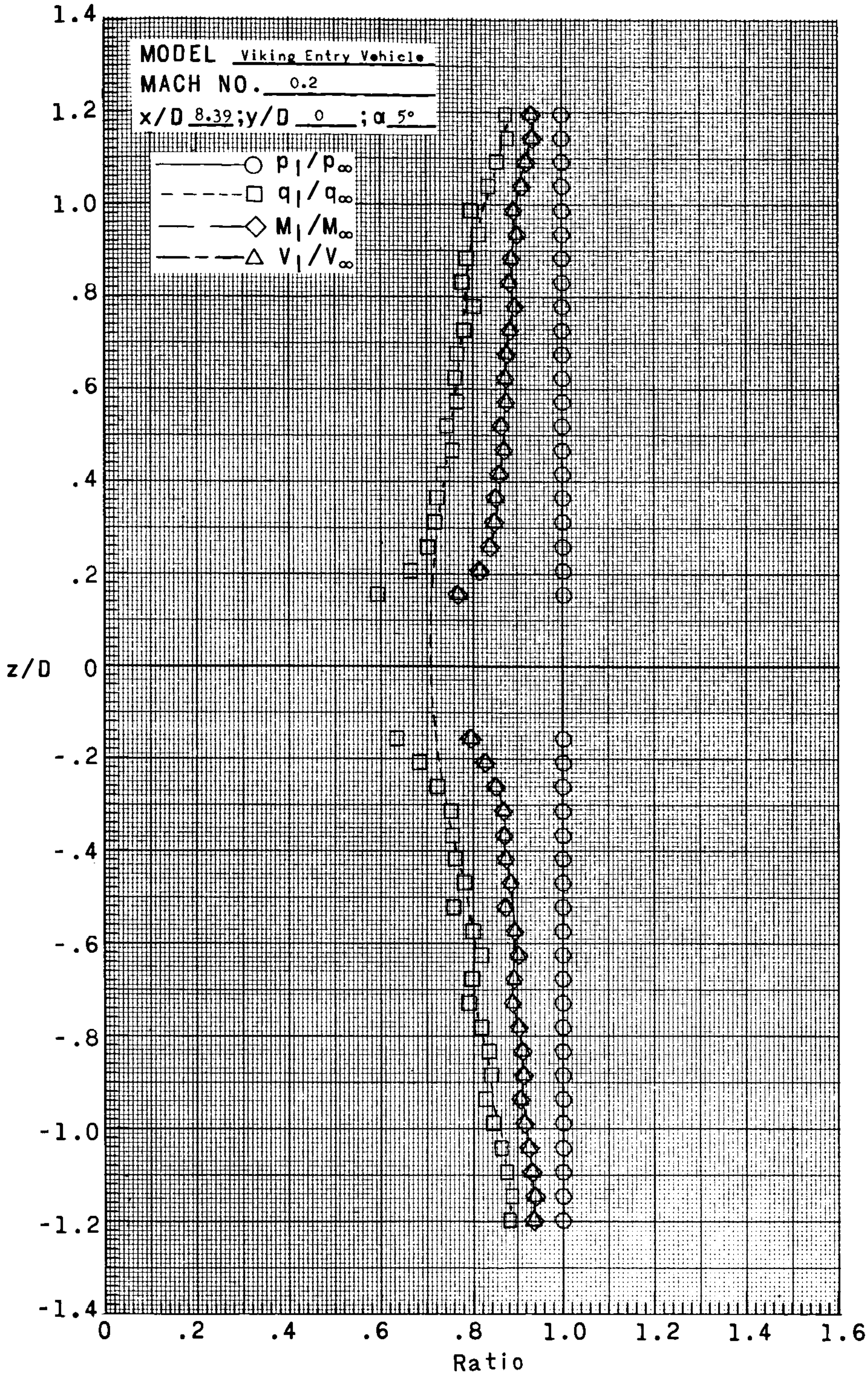
(a) x/D = 6.00.

Figure 11.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞, with z/D in wake of Viking Entry Vehicle at Mach number of 0.20, y/D = 0, $\alpha = 5^o$, and Reynolds number of 3.97×10^6 per meter (1.21×10^6 per foot).



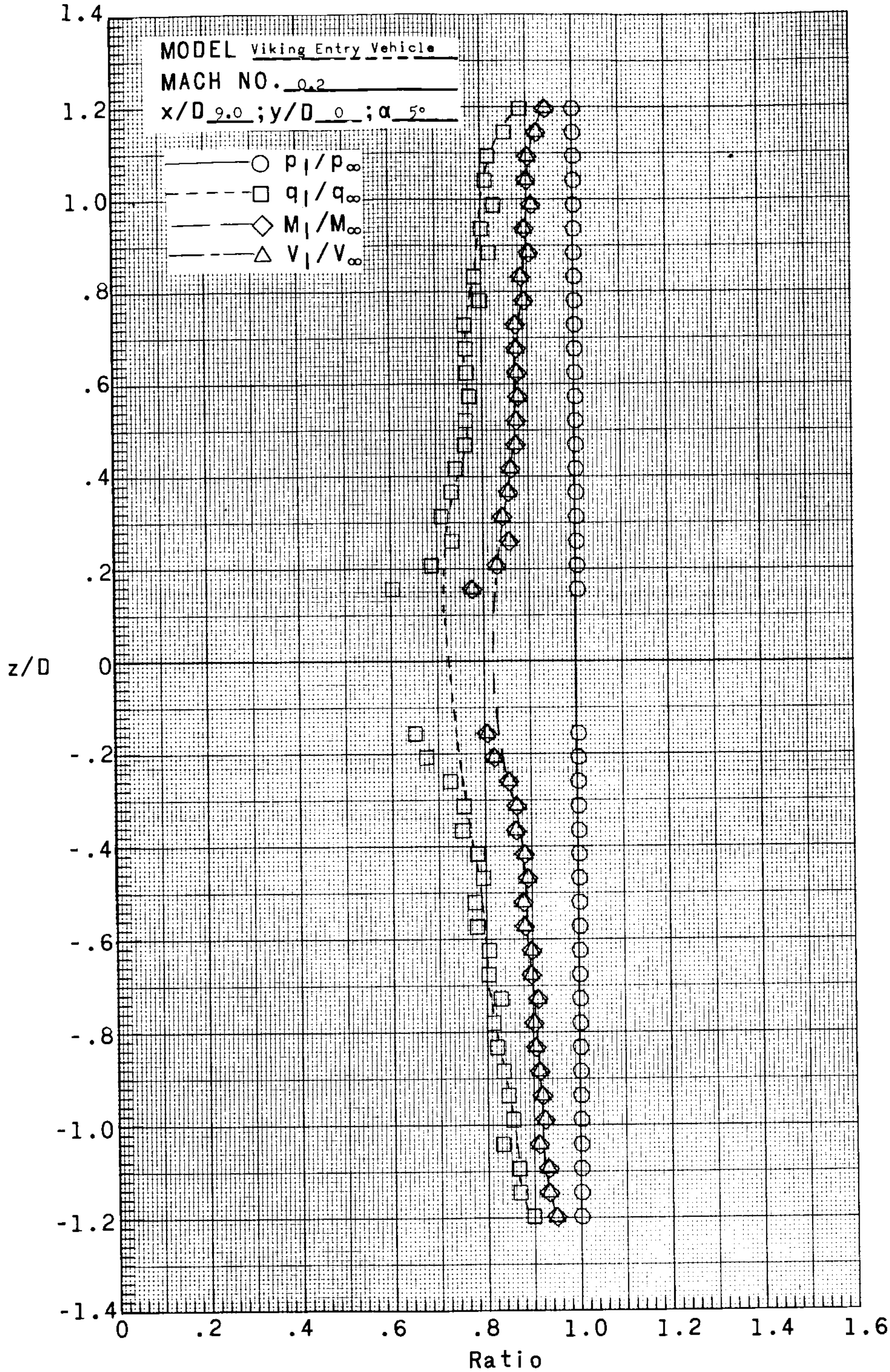
(b) x/D = 7.00.

Figure 11.- Continued.



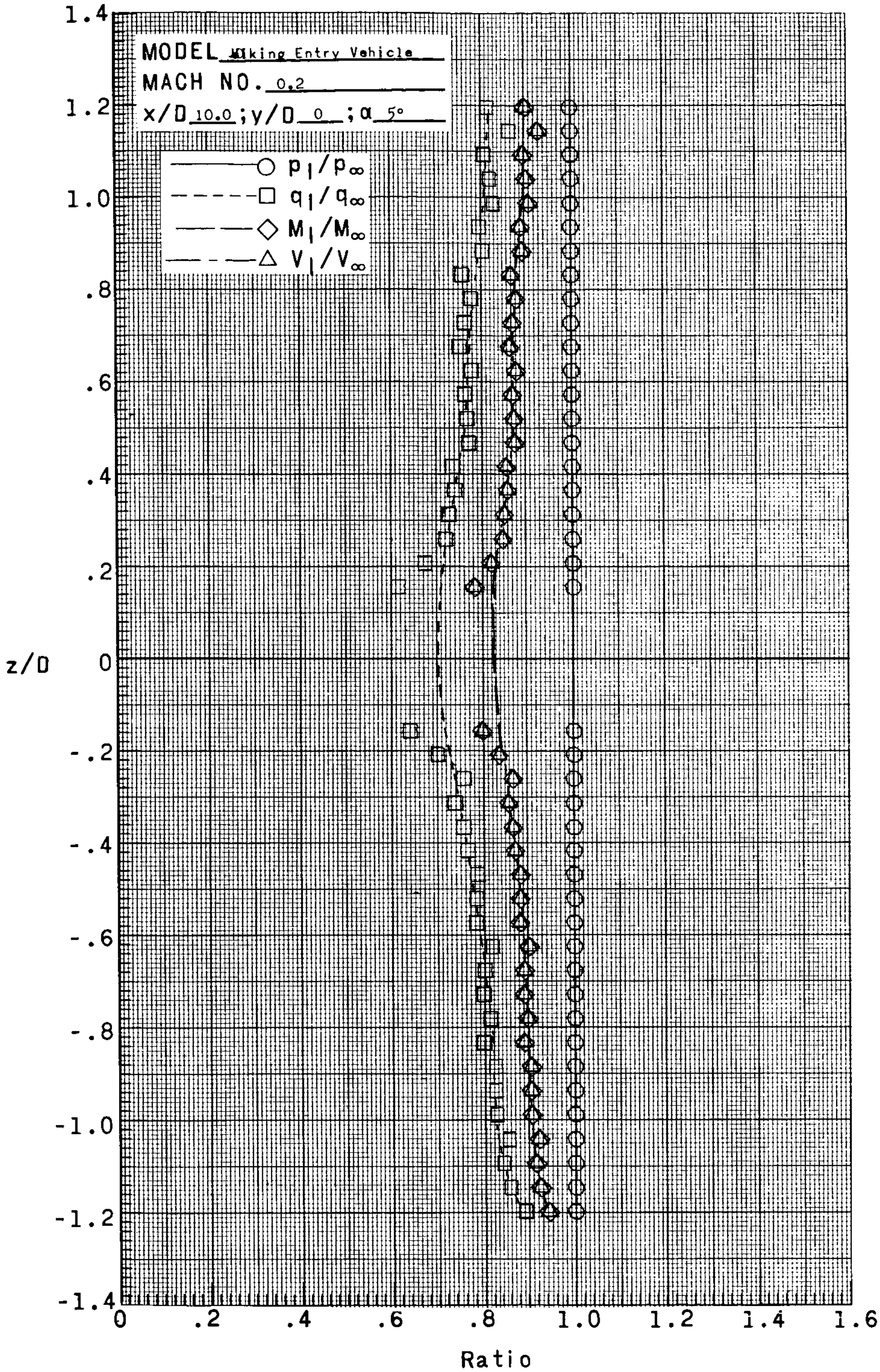
(c) x/D = 8.39.

Figure 11.- Continued.



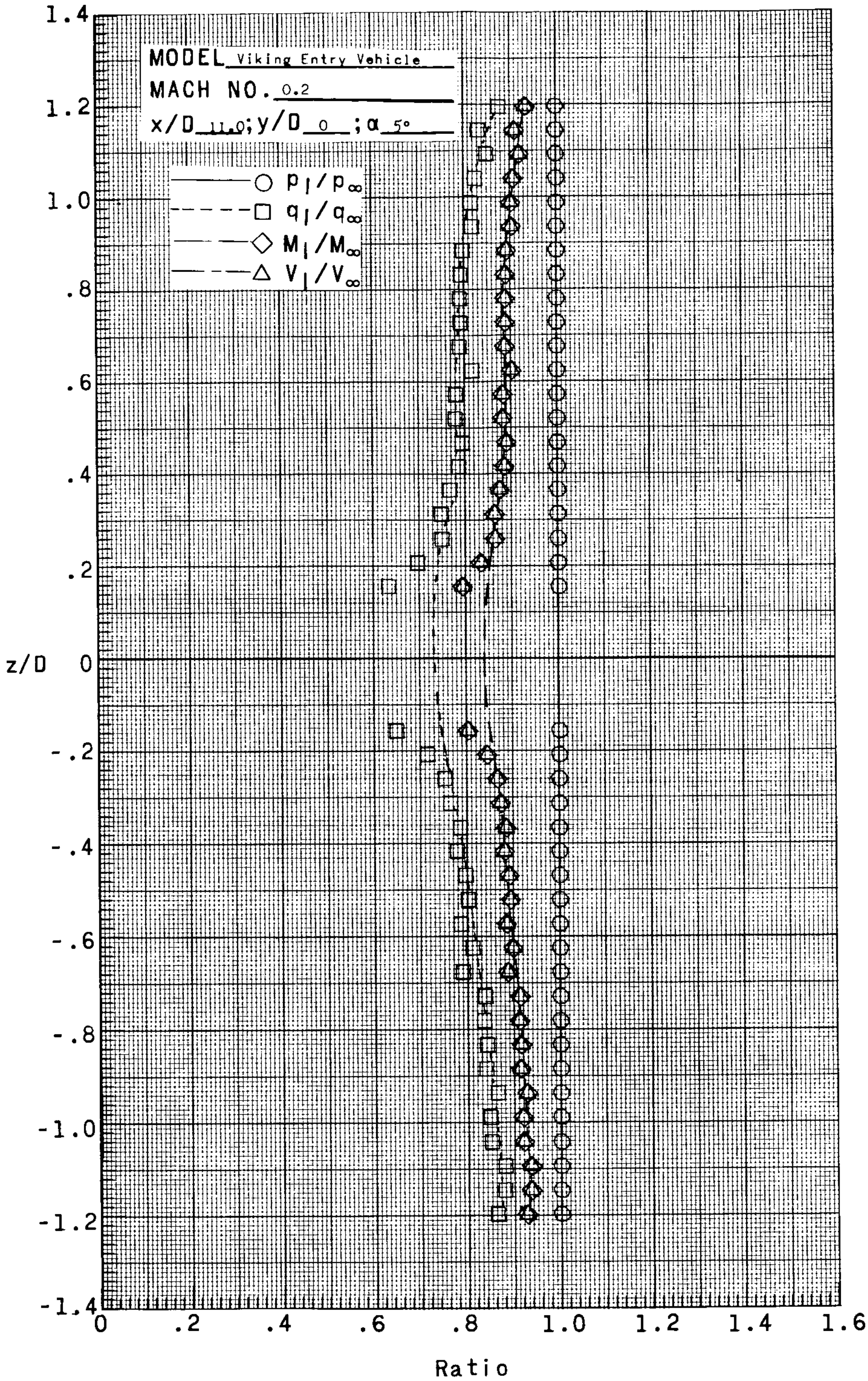
(d) x/D = 9.00.

Figure 11.- Continued.



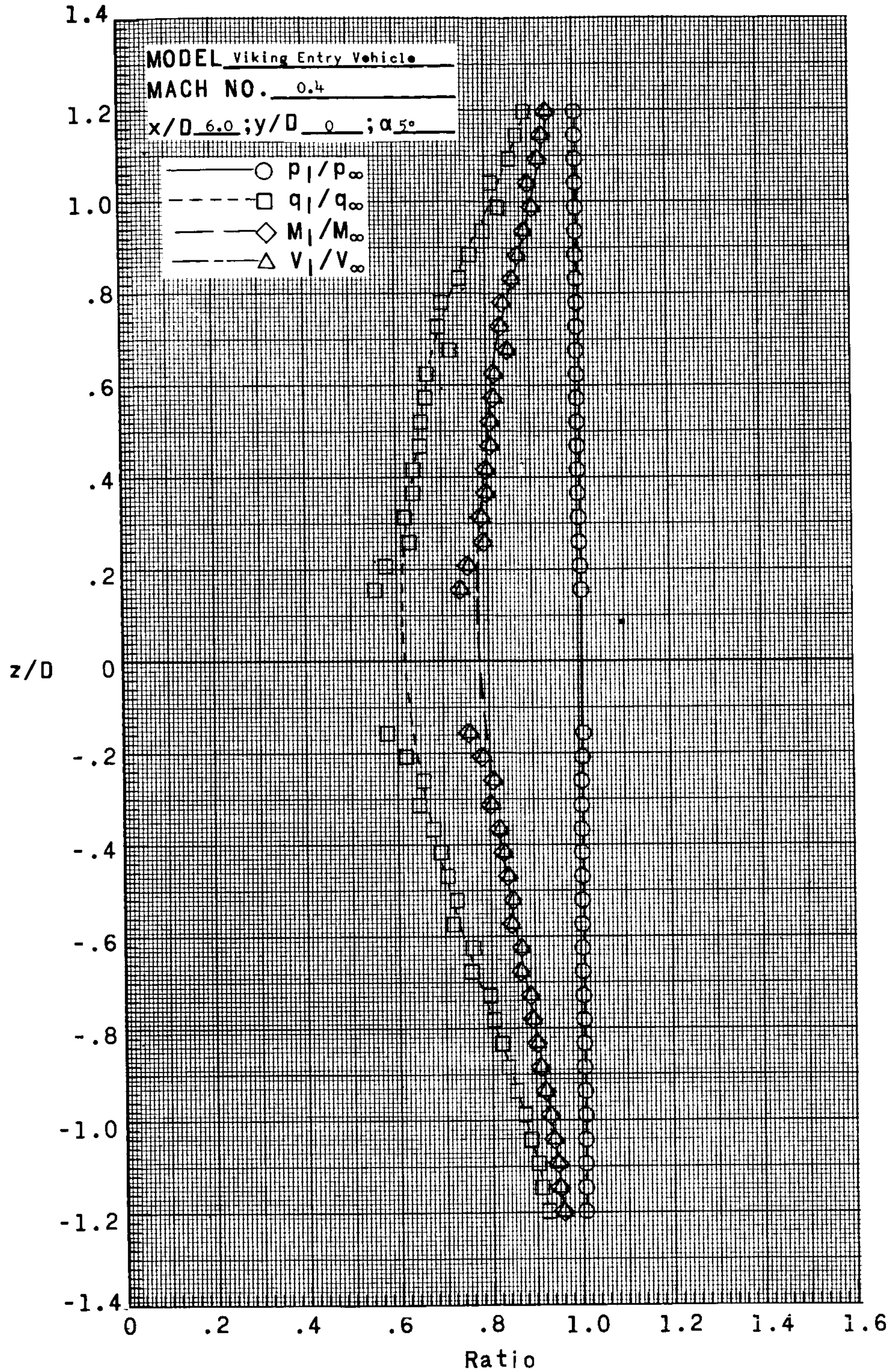
(e) x/D = 10.00.

Figure 11.- Continued.



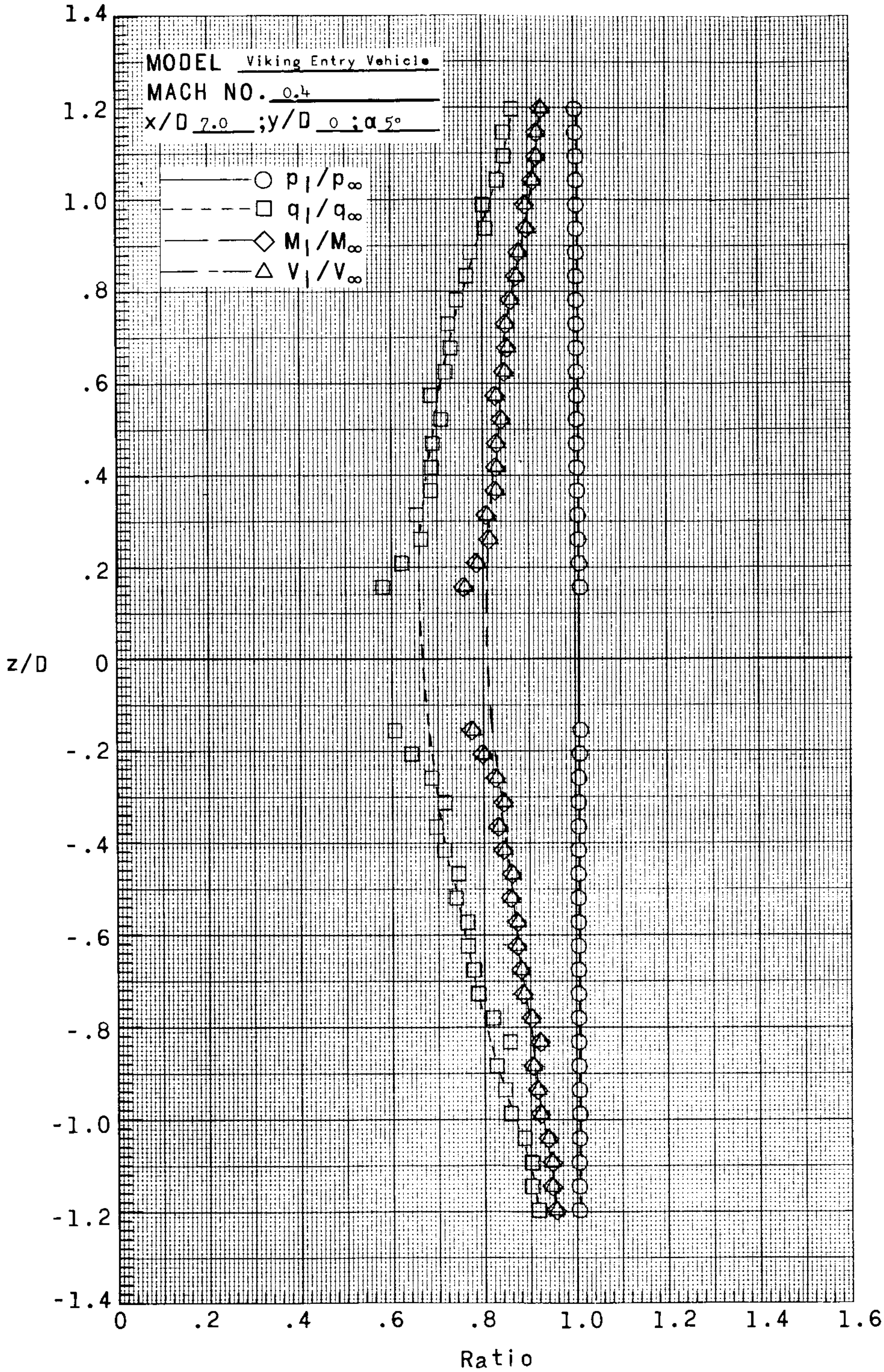
(f) x/D = 11.00.

Figure 11.- Concluded.



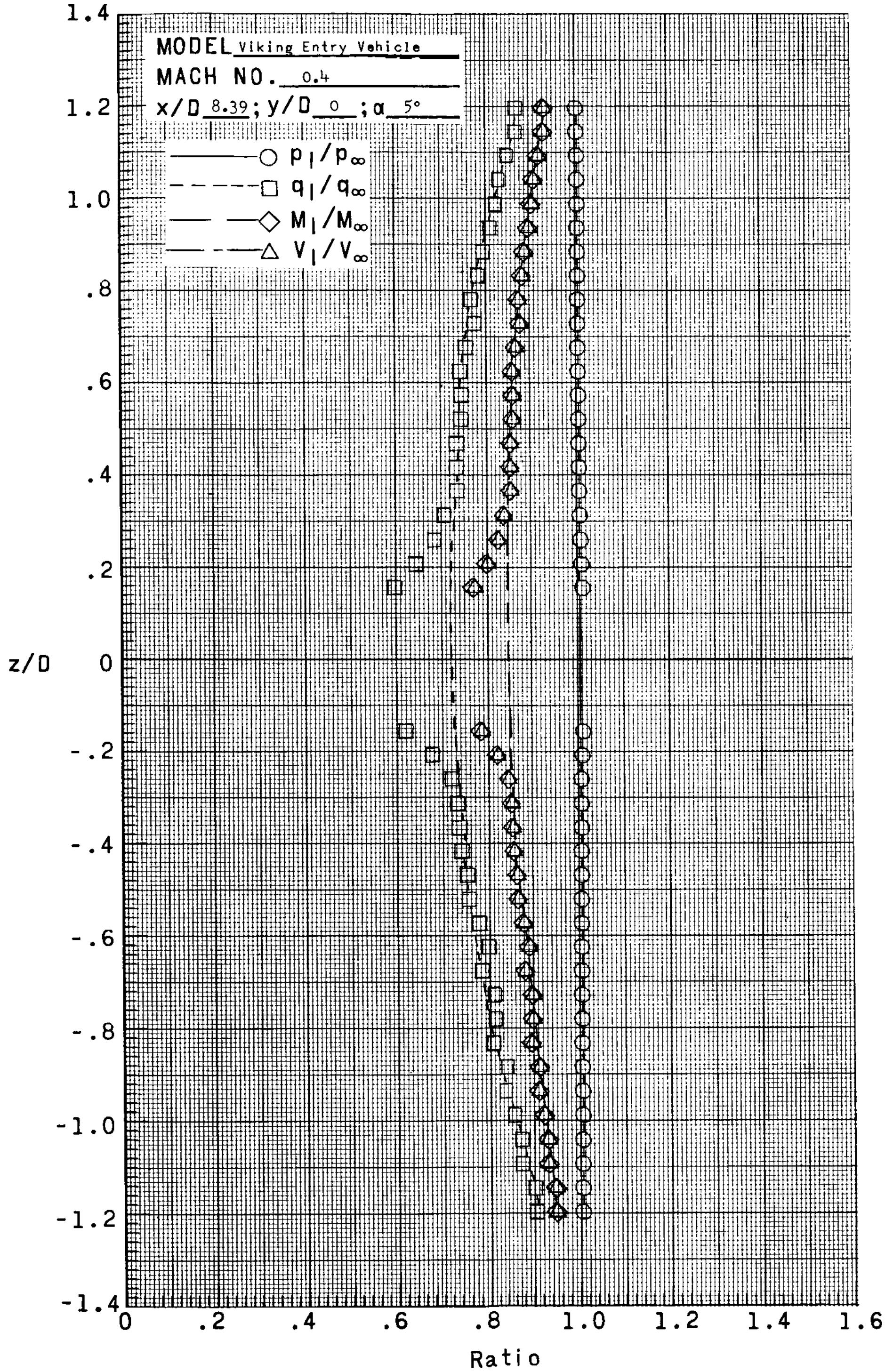
(a) x/D = 6.00.

Figure 12.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.40, y/D = 0, $\alpha = 5^{\circ}$, and Reynolds number of 7.54×10^6 per meter (2.30×10^6 per foot).



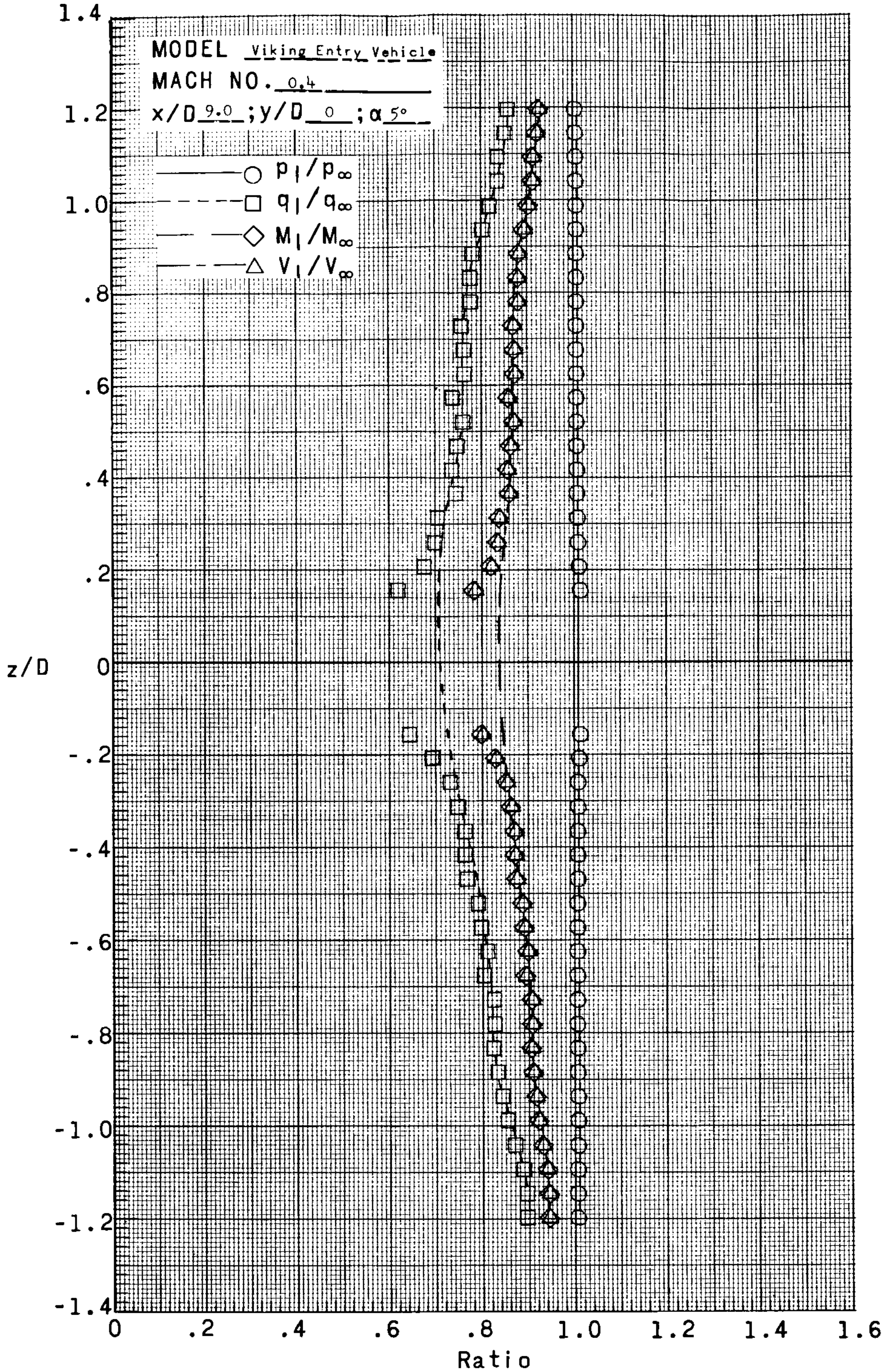
(b) x/D = 7.00.

Figure 12.- Continued.



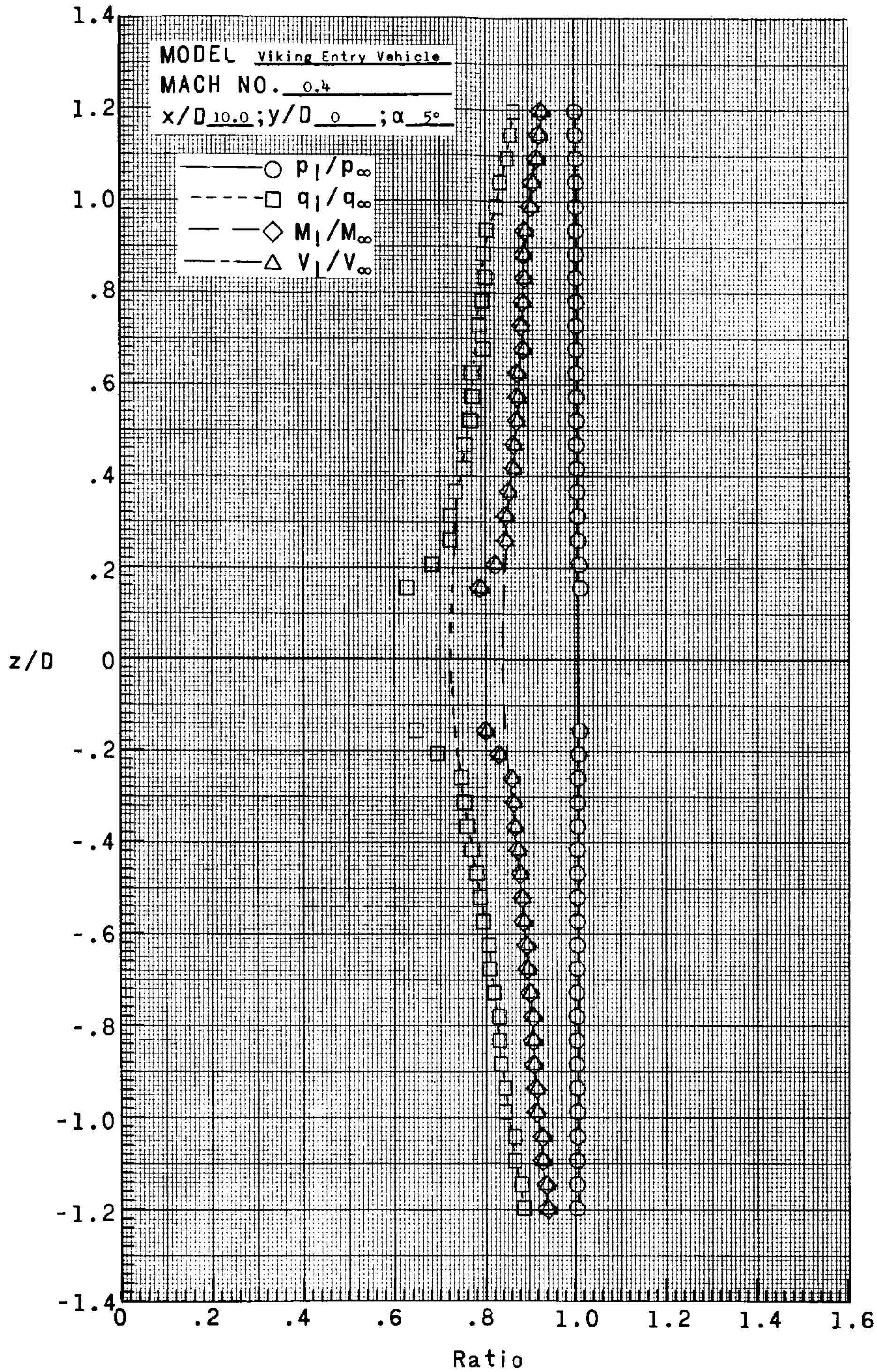
(c) x/D = 8.39.

Figure 12.- Continued.



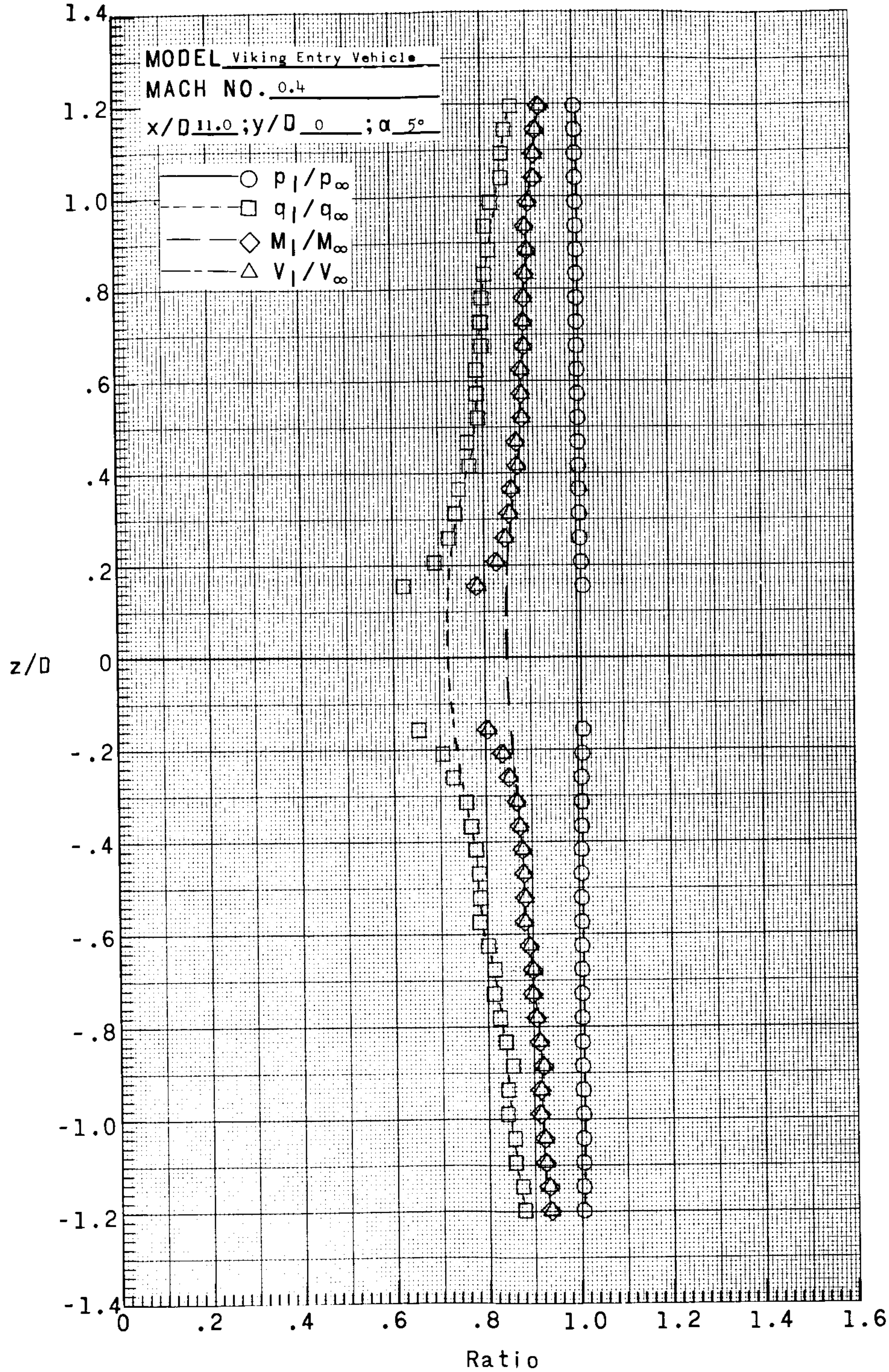
(d) x/D = 9.00.

Figure 12.- Continued.



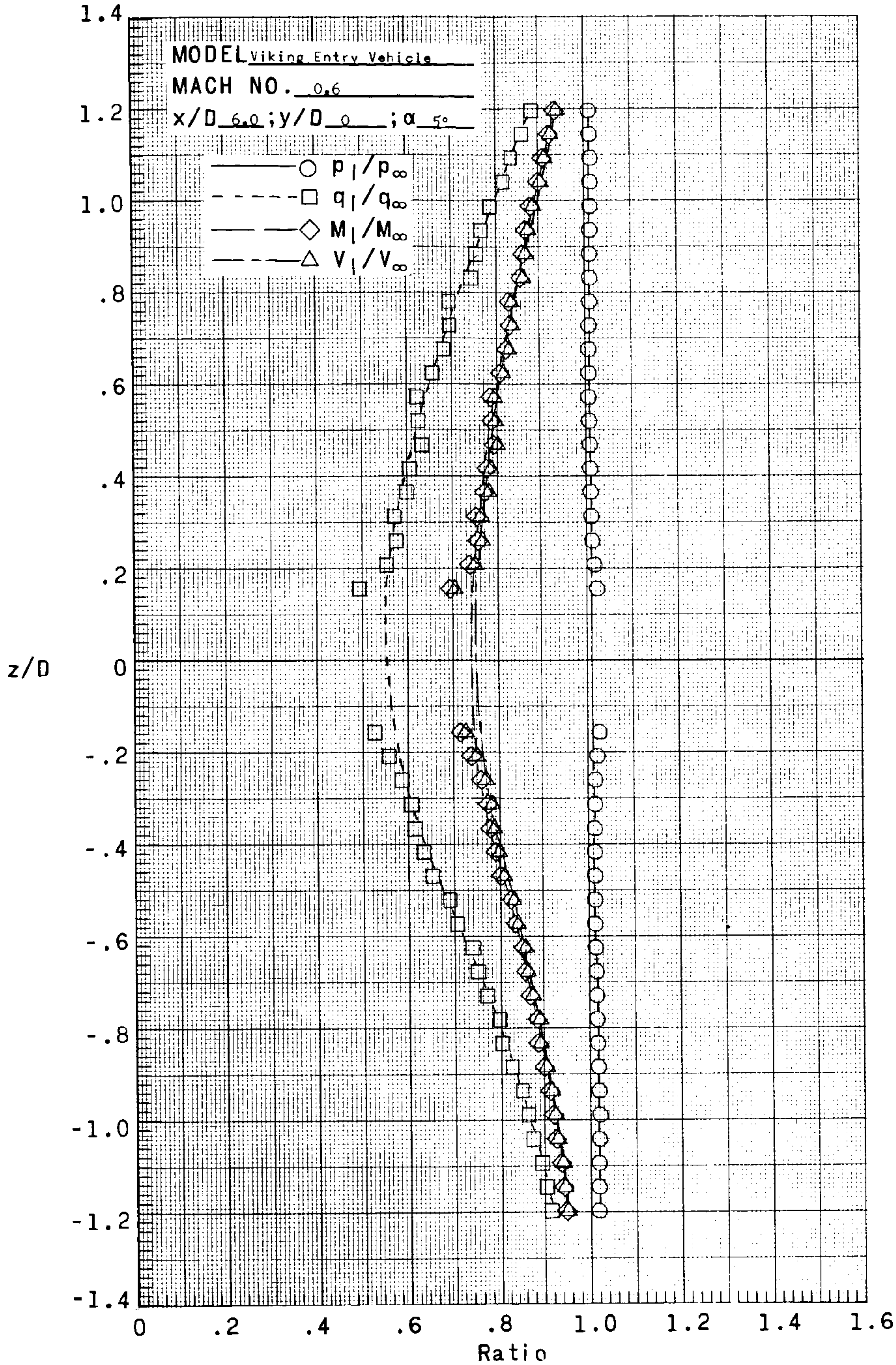
(e) x/D = 10.00.

Figure 12.- Continued.



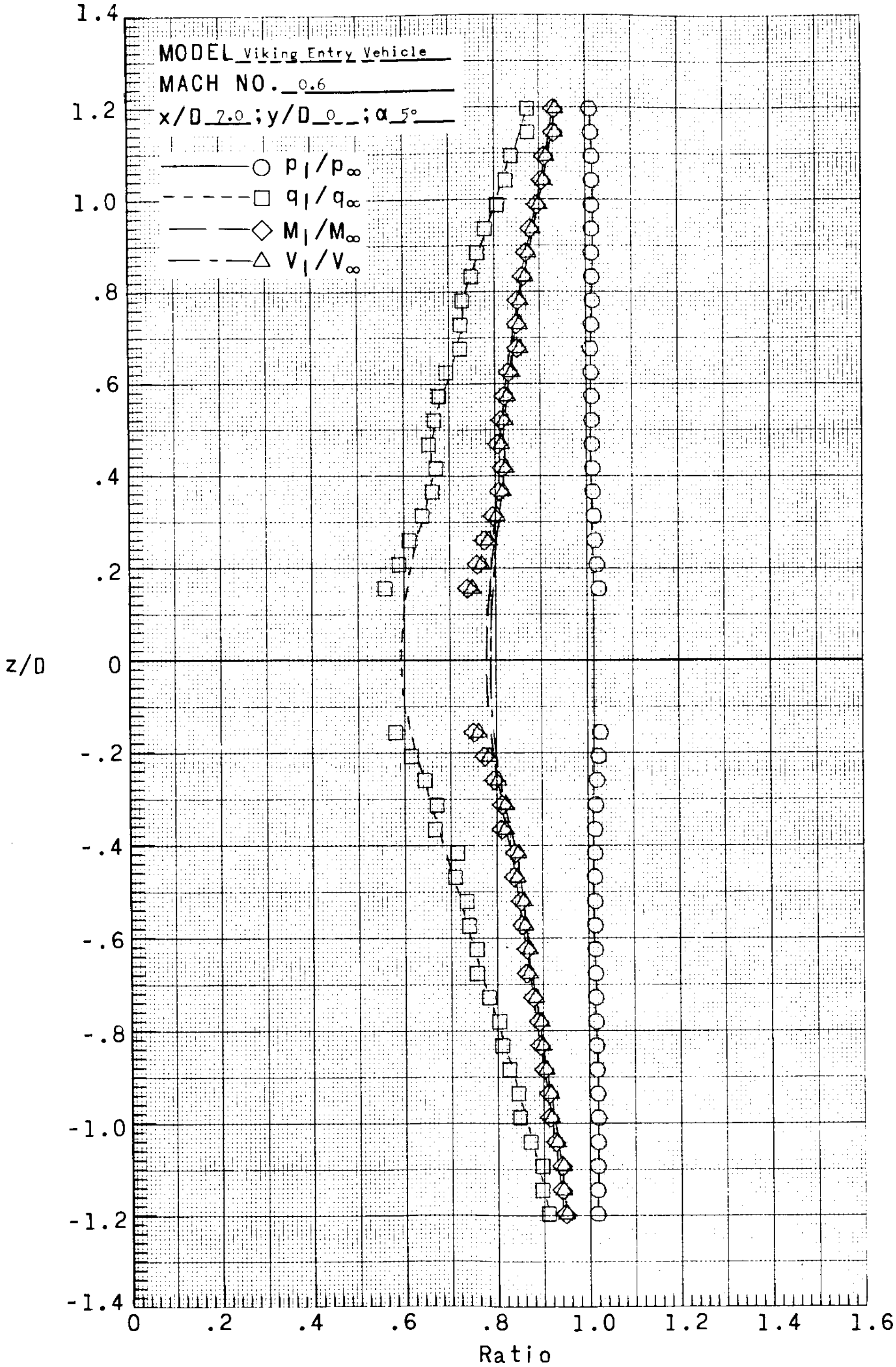
(f) x/D = 11.00.

Figure 12.- Concluded.



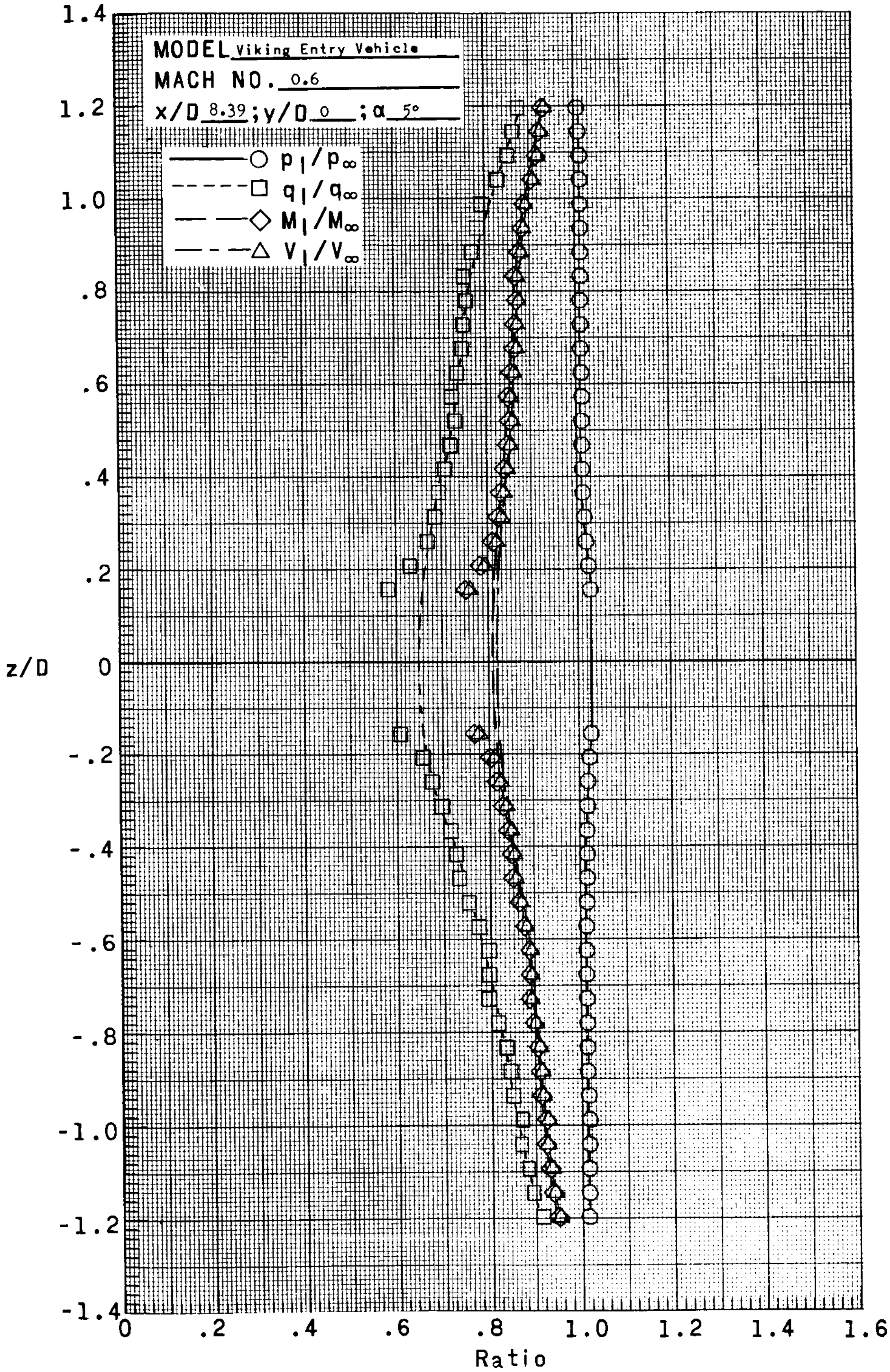
(a) x/D = 6.00.

Figure 13.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.60, y/D = 0, $\alpha = 5^\circ$, and Reynolds number of 10.40×10^6 per meter (3.17×10^6 per foot).



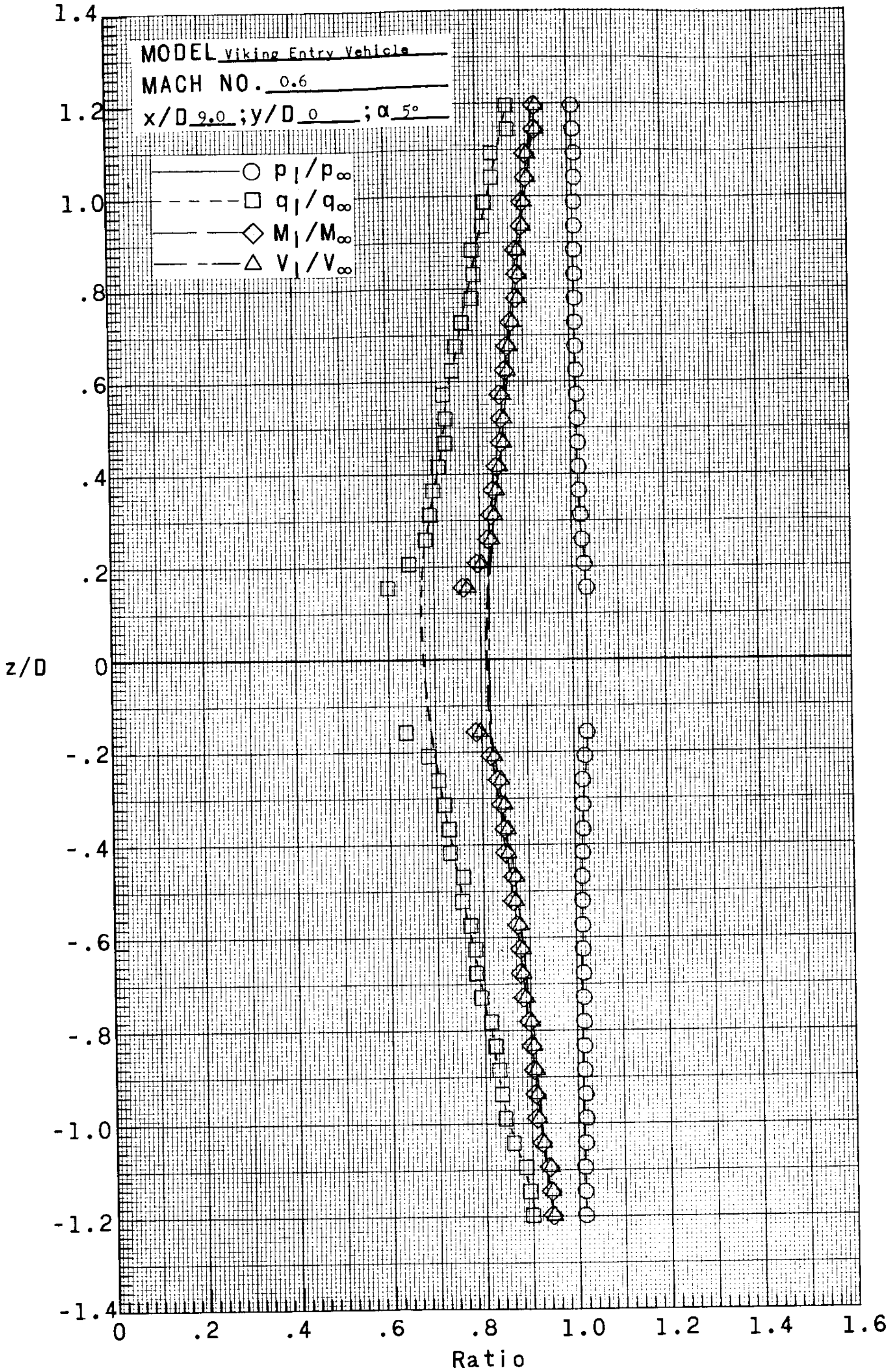
(b) x/D = 7.00.

Figure 13.- Continued.



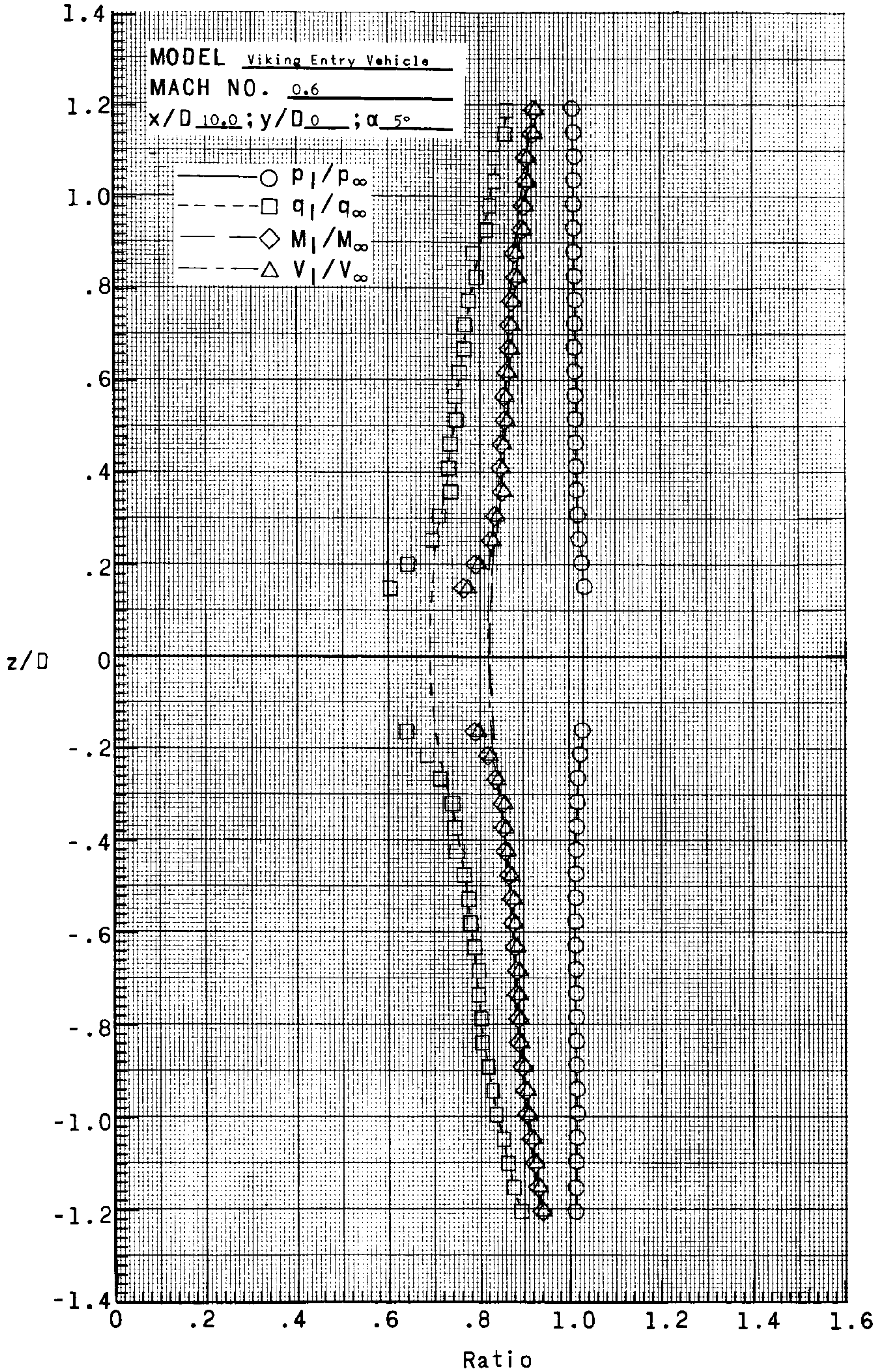
(c) x/D = 8.39.

Figure 13.- Continued.



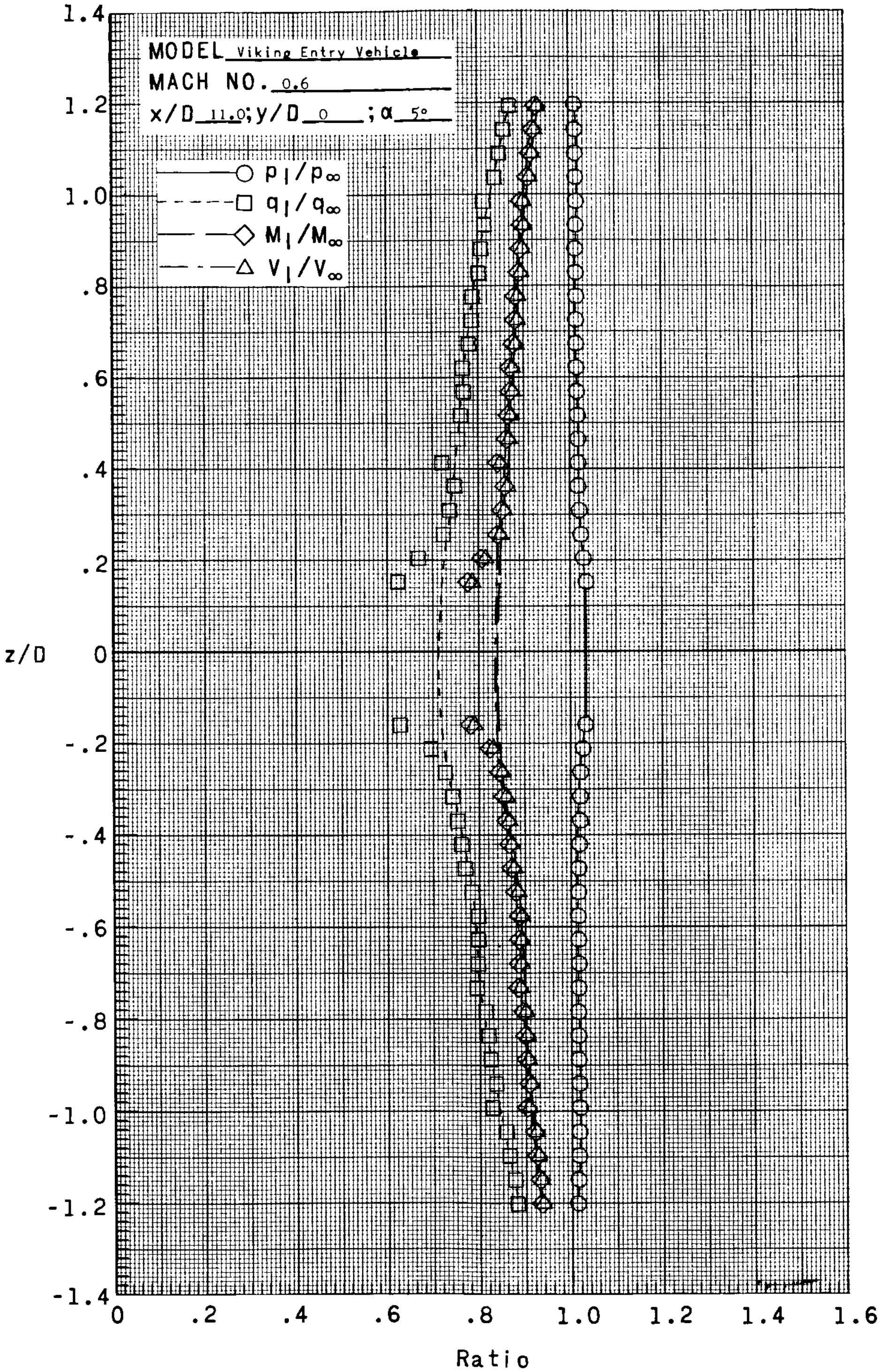
(d) x/D = 9.00.

Figure 13.- Continued.



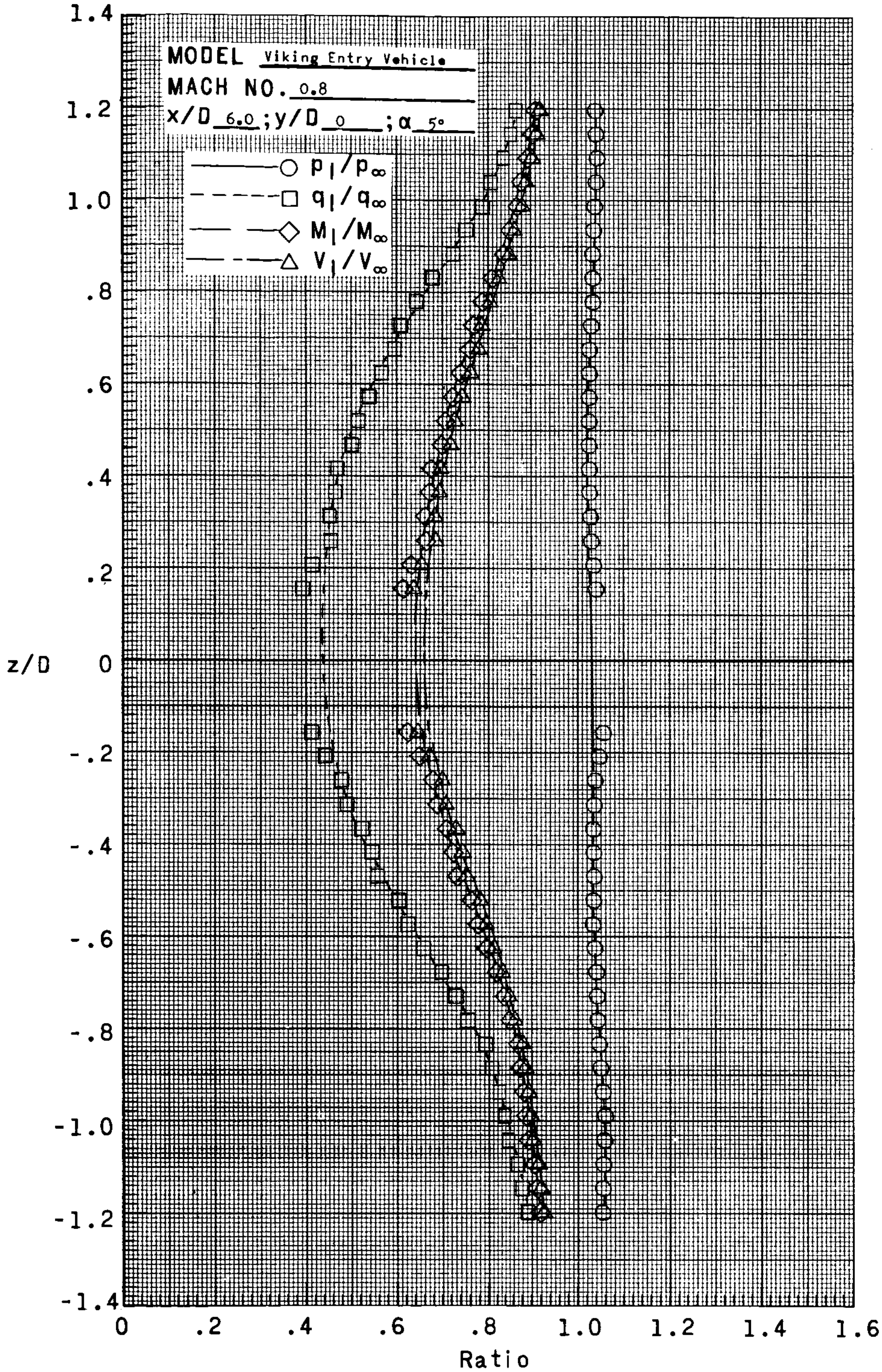
(e) x/D = 10.00.

Figure 13.- Continued.



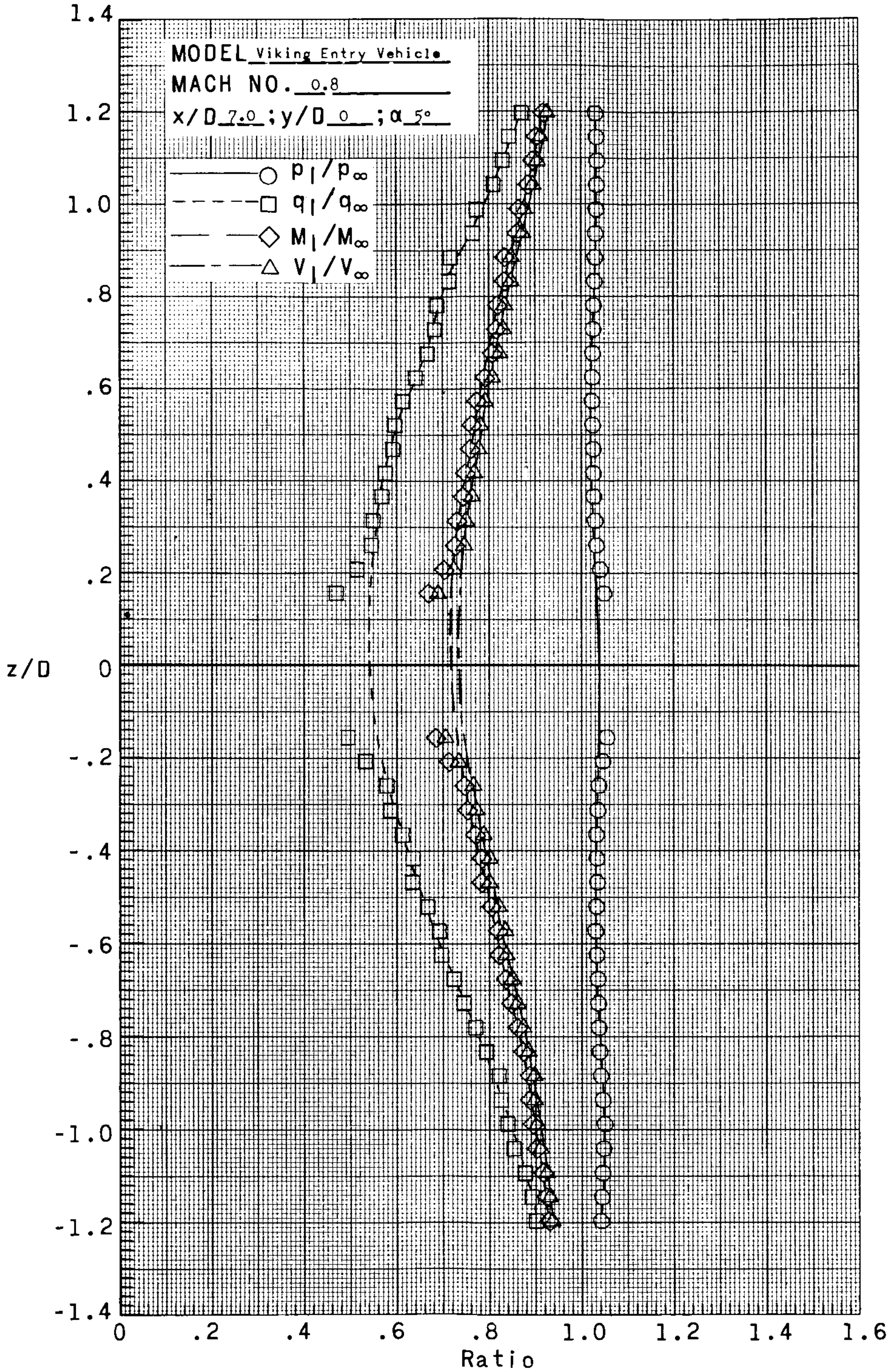
(f) x/D = 11.00.

Figure 13.- Concluded.



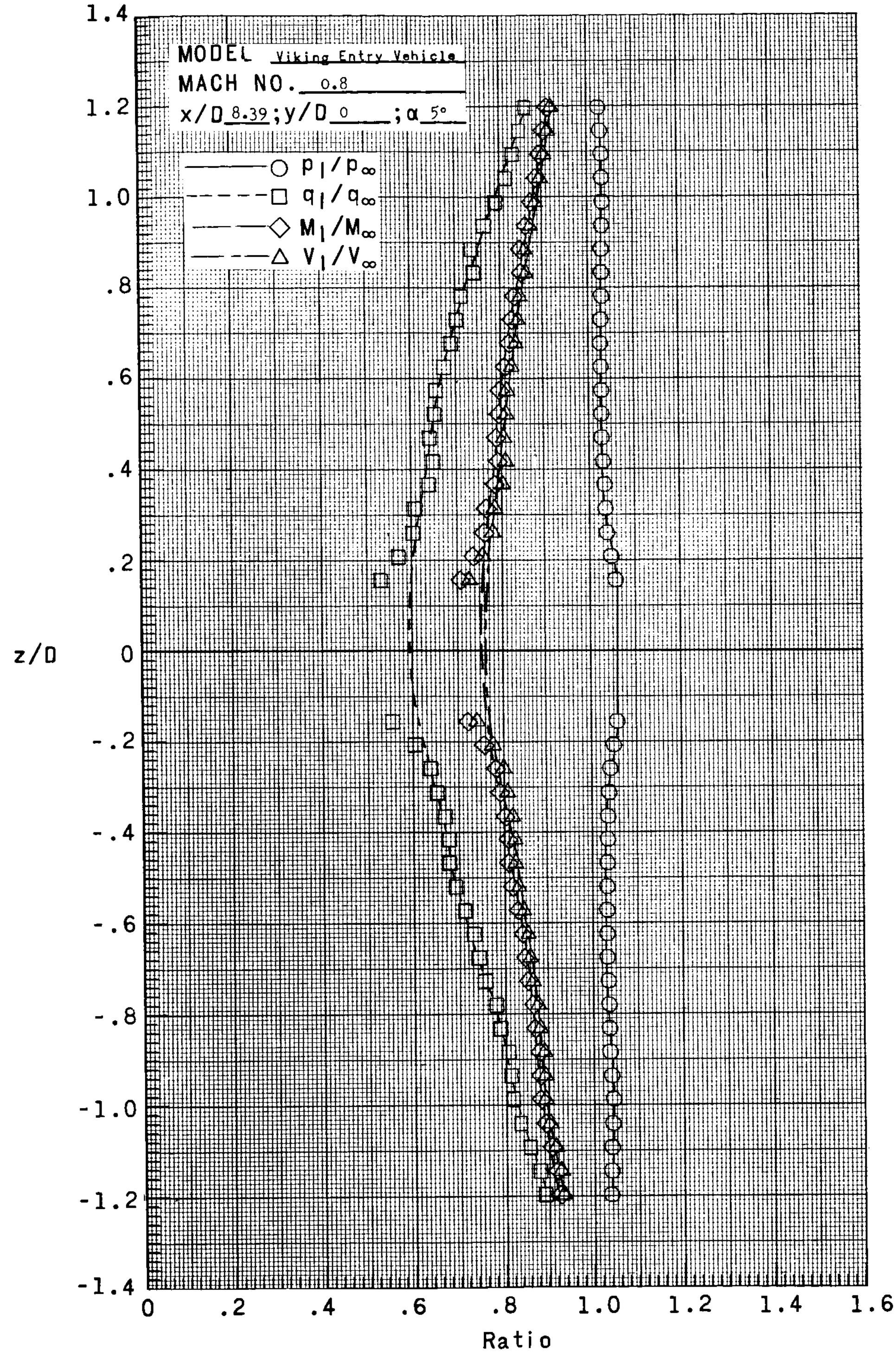
(a) x/D = 6.00.

Figure 14.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.80, y/D = 0, $\alpha = 5^\circ$, and Reynolds number of 12.30×10^6 per meter (3.75×10^6 per foot).



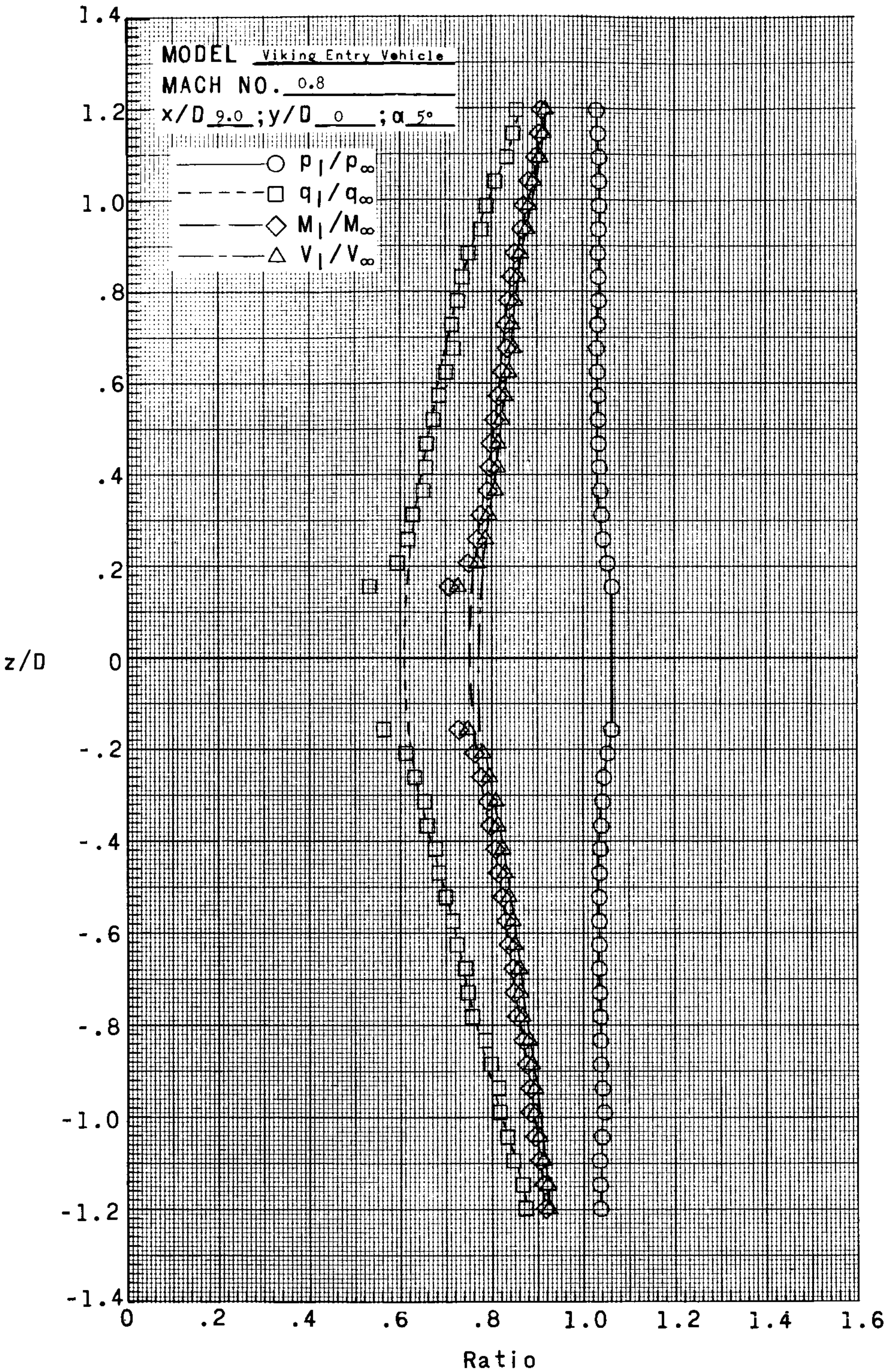
(b) x/D = 7.00.

Figure 14.- Continued.



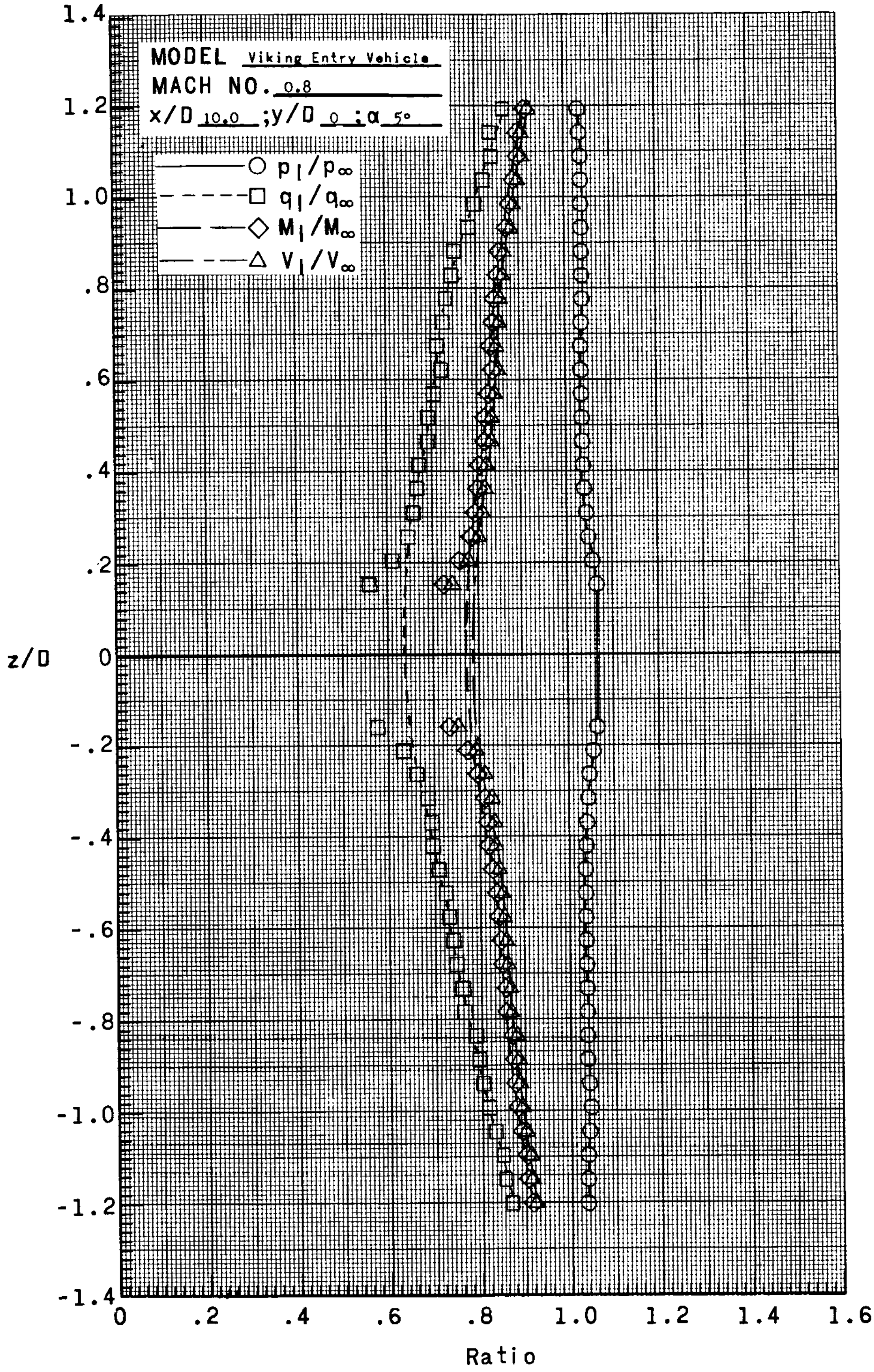
(c) x/D = 8.39.

Figure 14.- Continued.



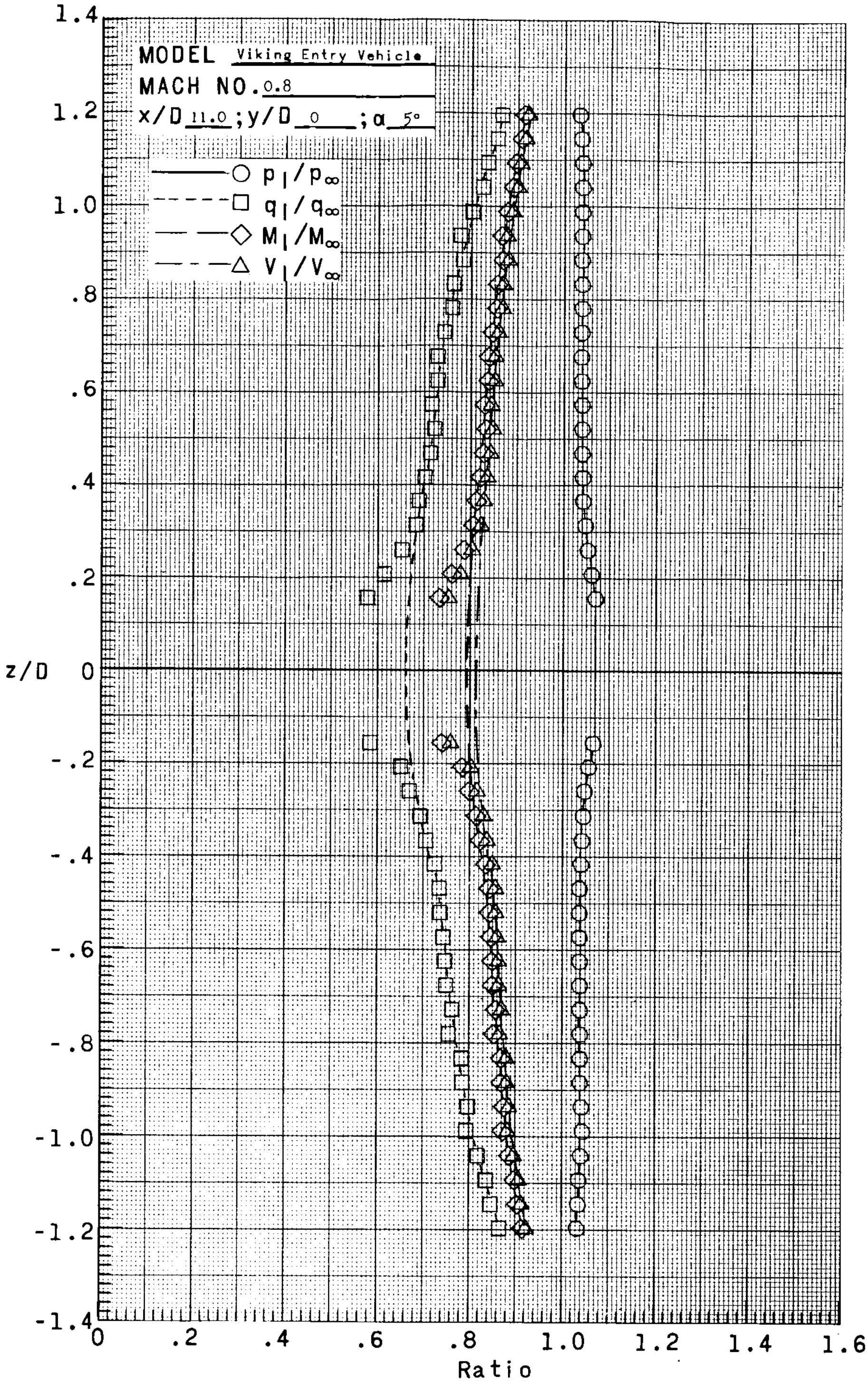
(d) x/D = 9.00.

Figure 14.- Continued.



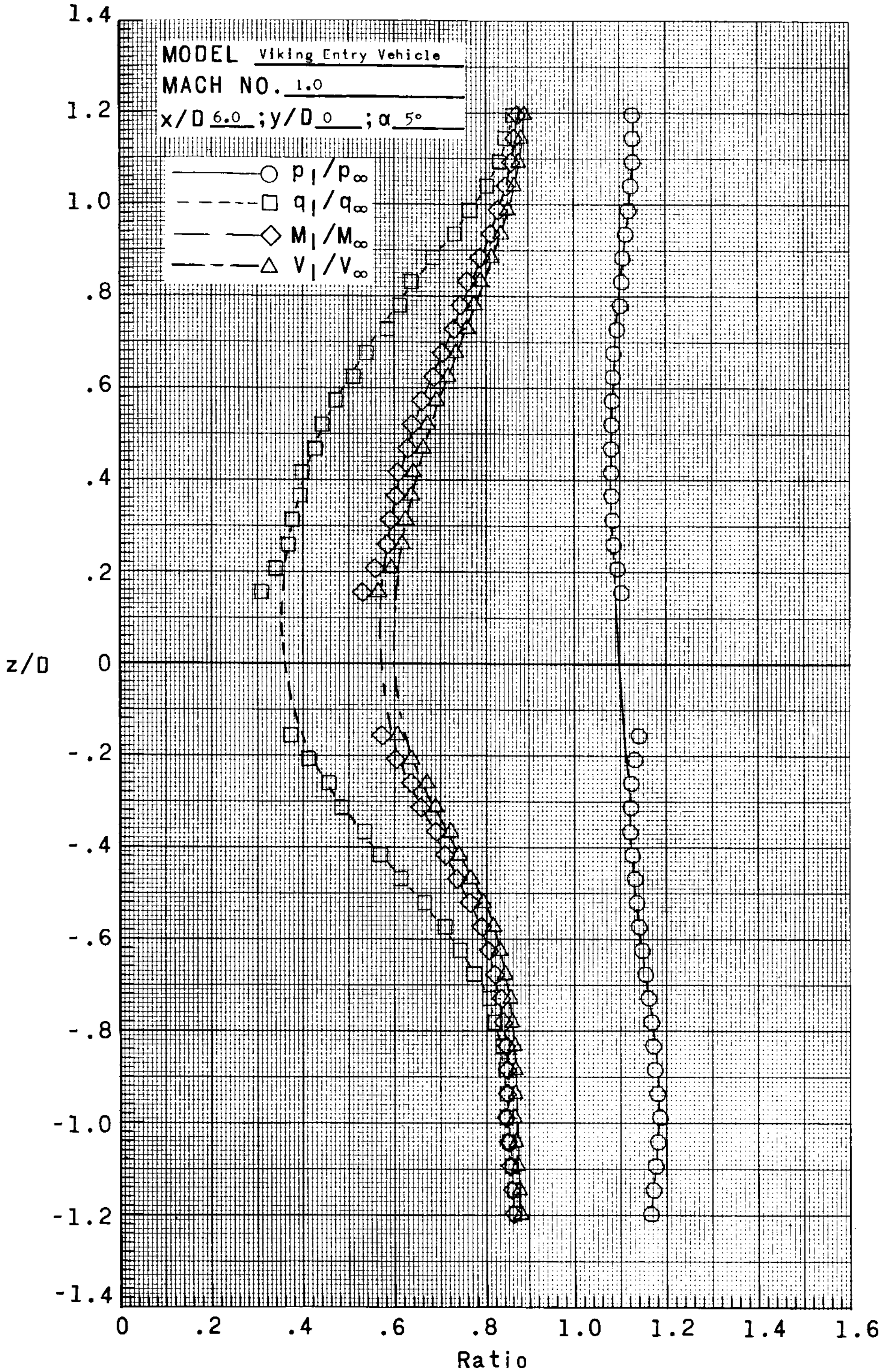
(e) x/D = 10.00.

Figure 14.- Continued.



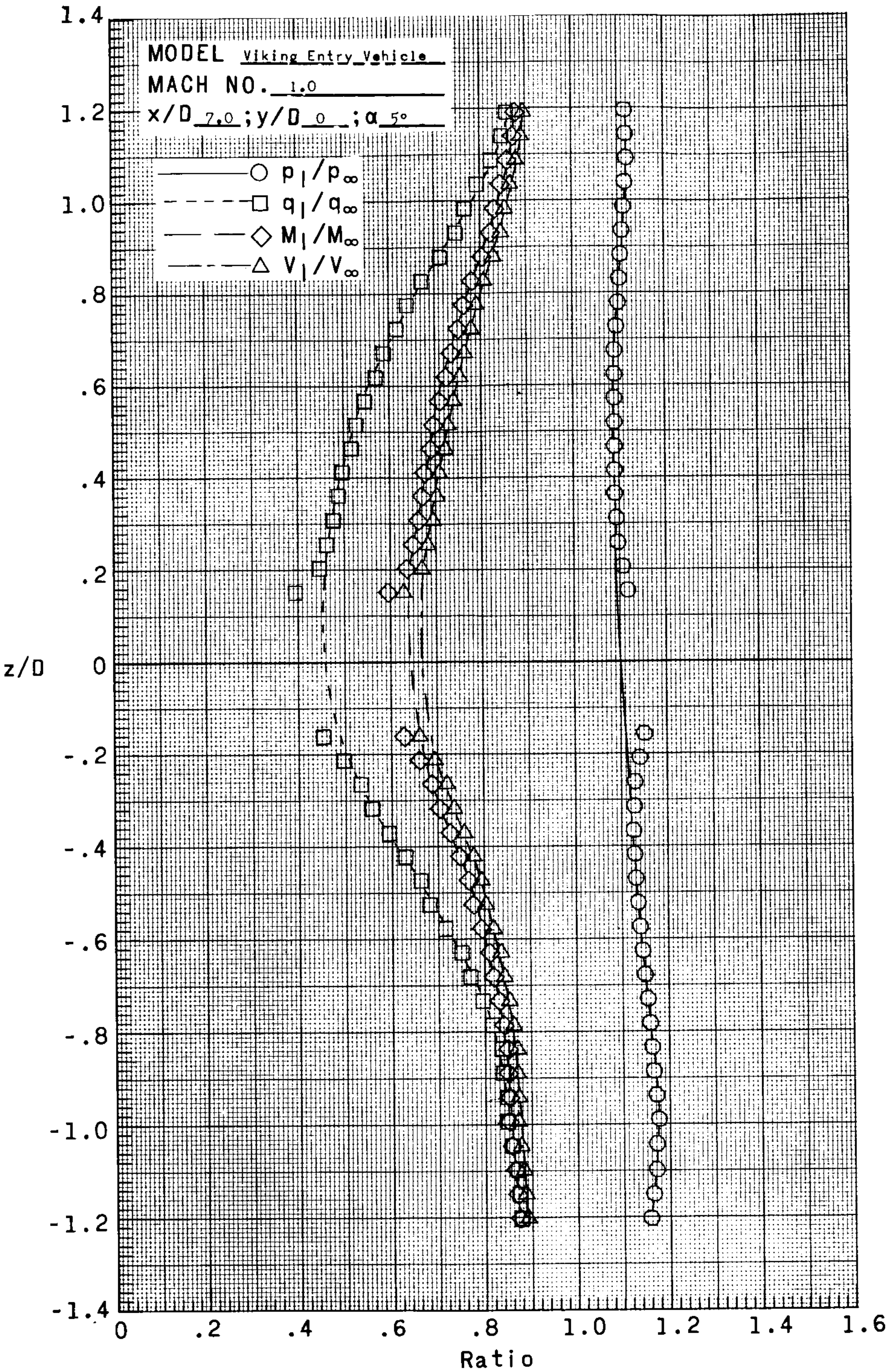
(f) x/D = 11.00.

Figure 14.- Concluded.



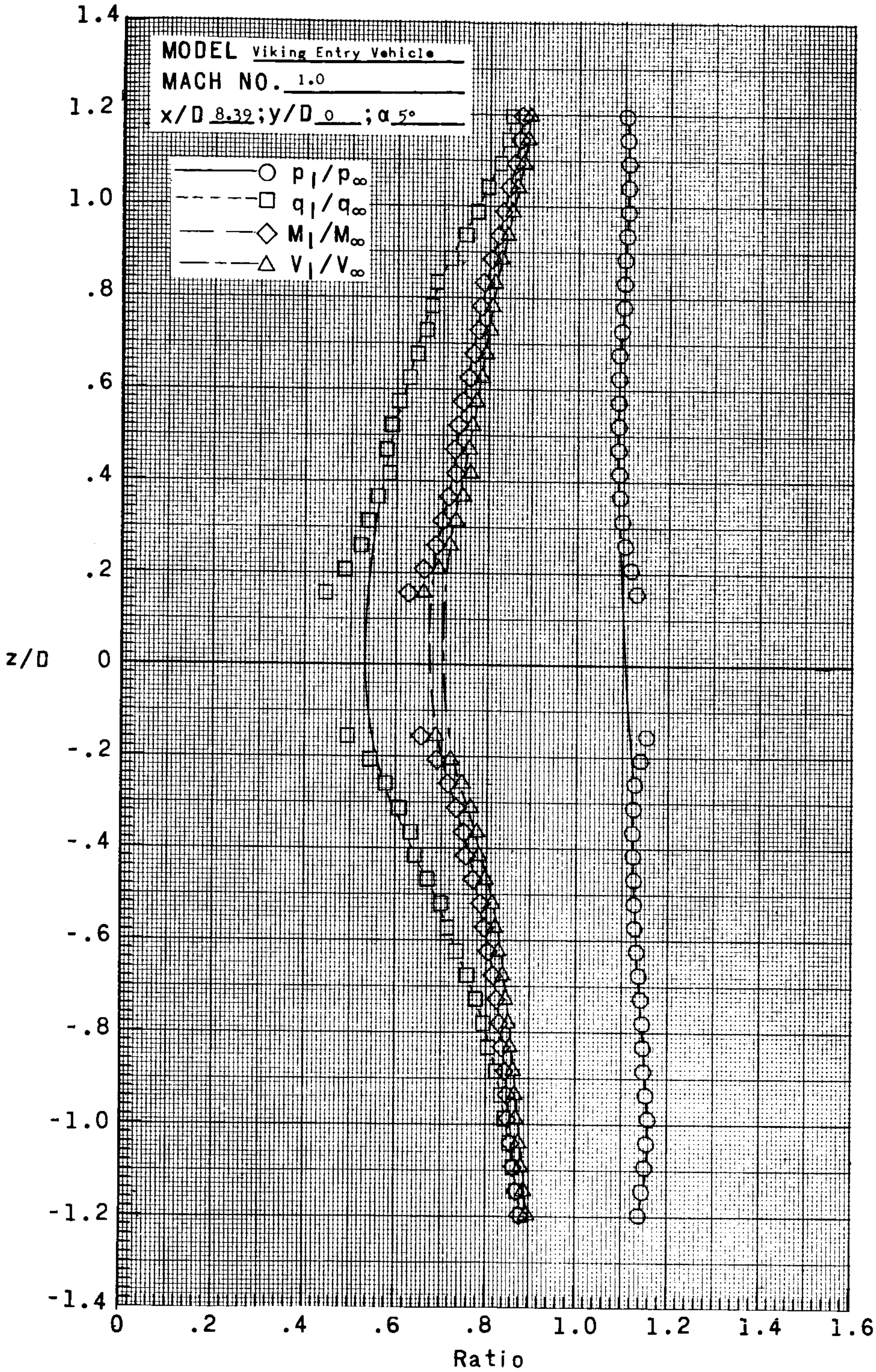
(a) $x/D = 6.00$.

Figure 15.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 1.00, $y/D = 0$, $\alpha = 5^o$, and Reynolds number of 13.75×10^6 per meter $(4.19 \times 10^6$ per foot).



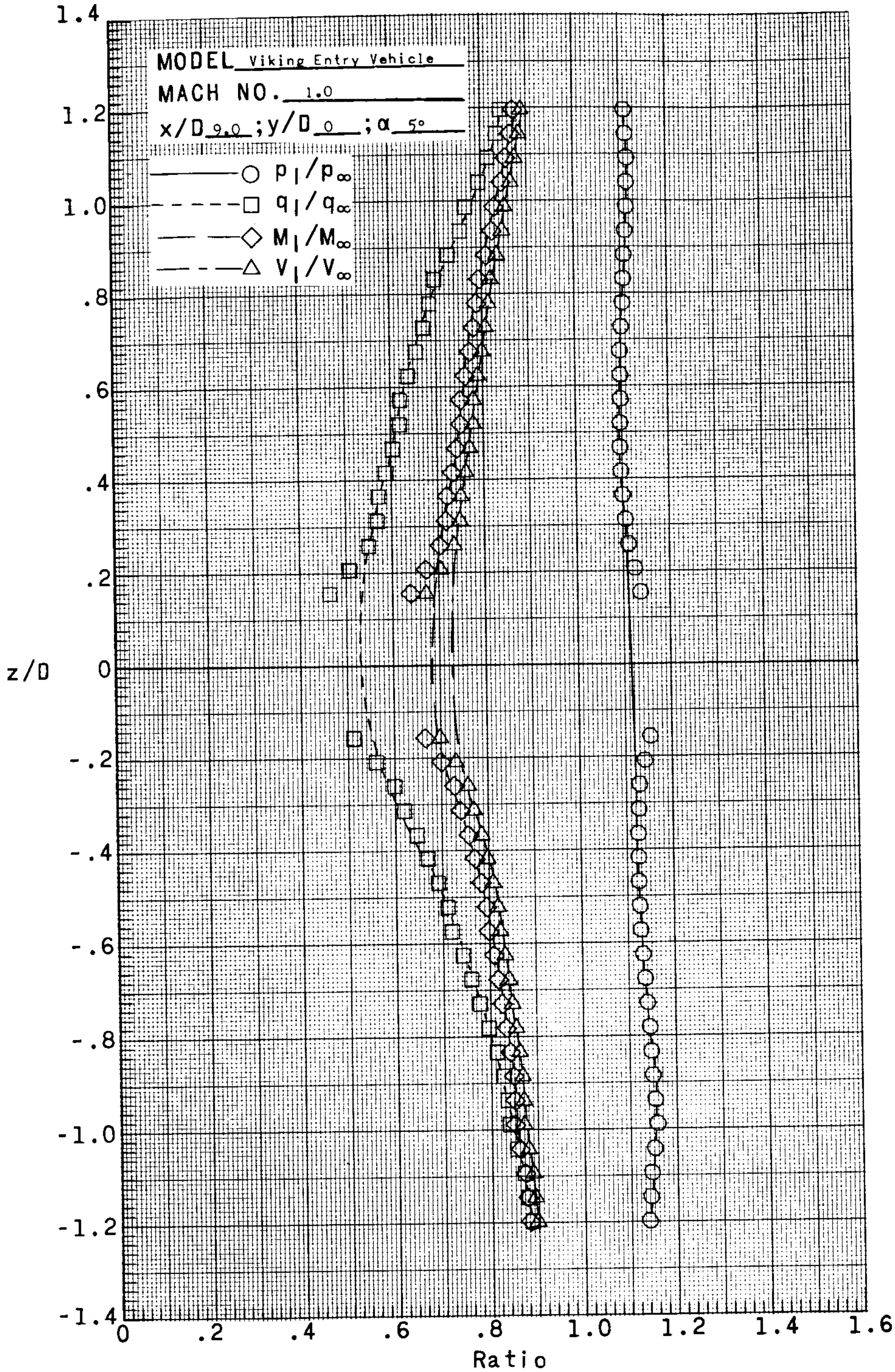
(b) x/D = 7.00.

Figure 15.- Continued.



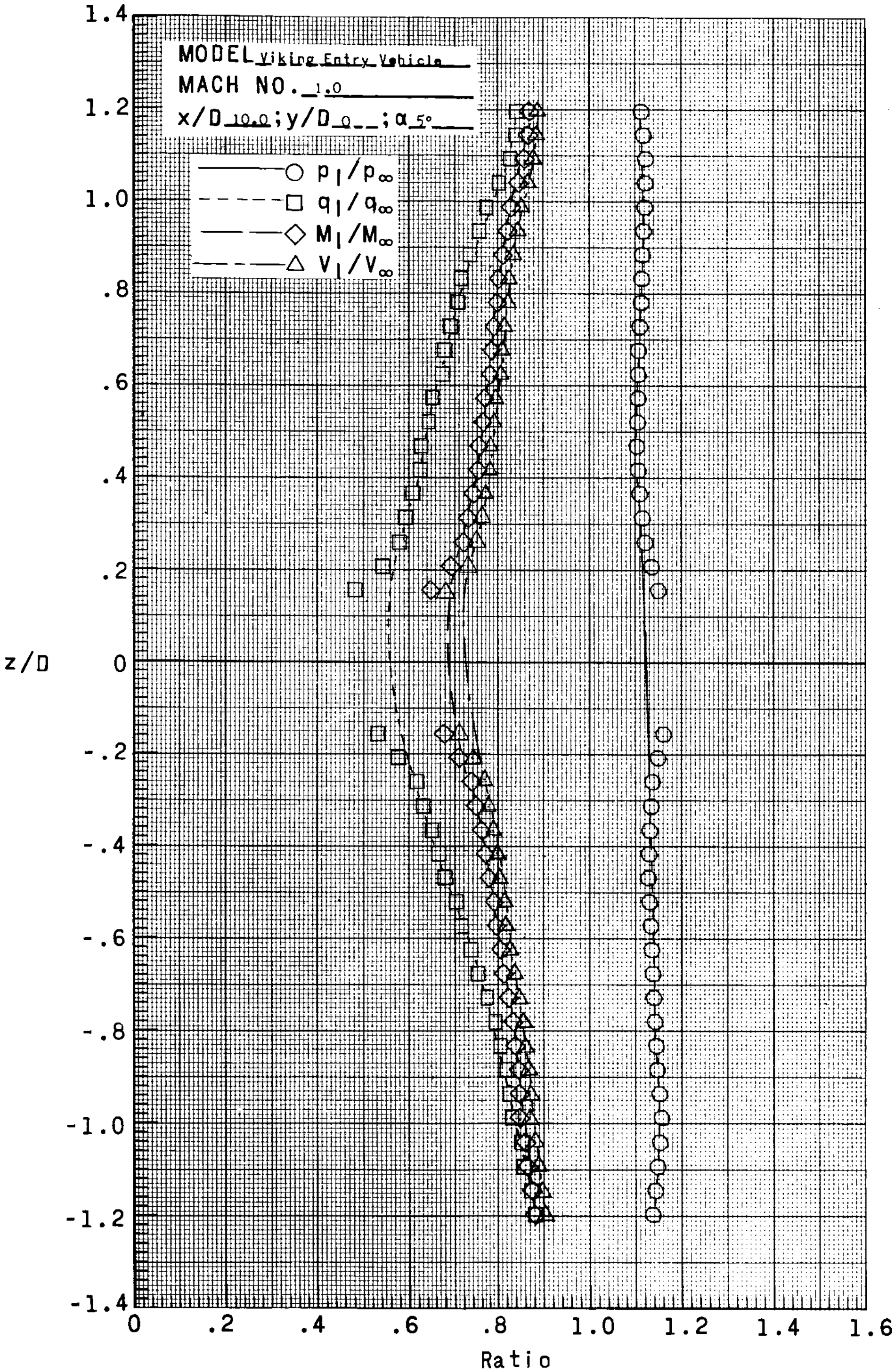
(c) x/D = 8.39.

Figure 15.- Continued.



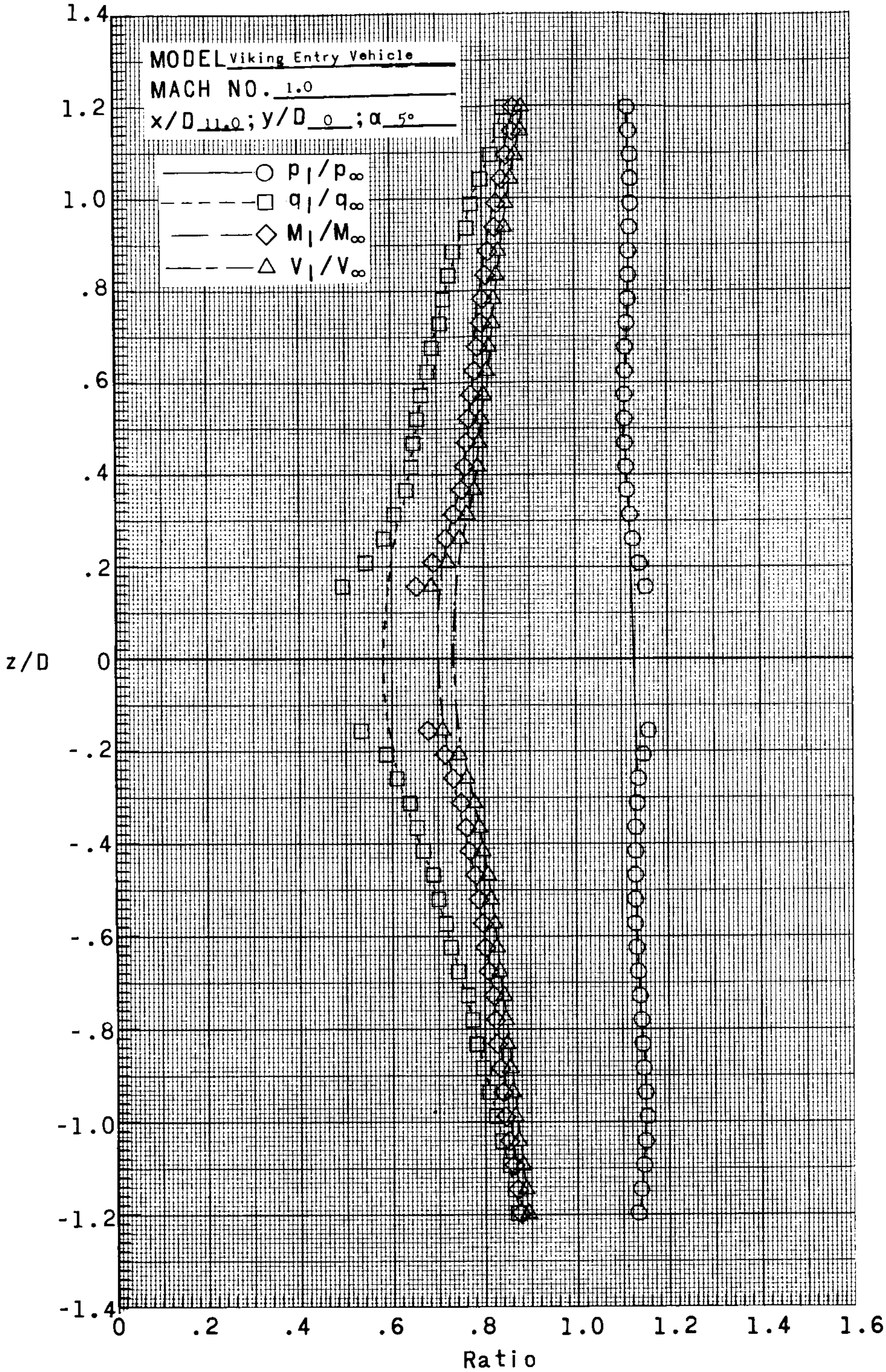
(d) x/D = 9.00.

Figure 15.- Continued.



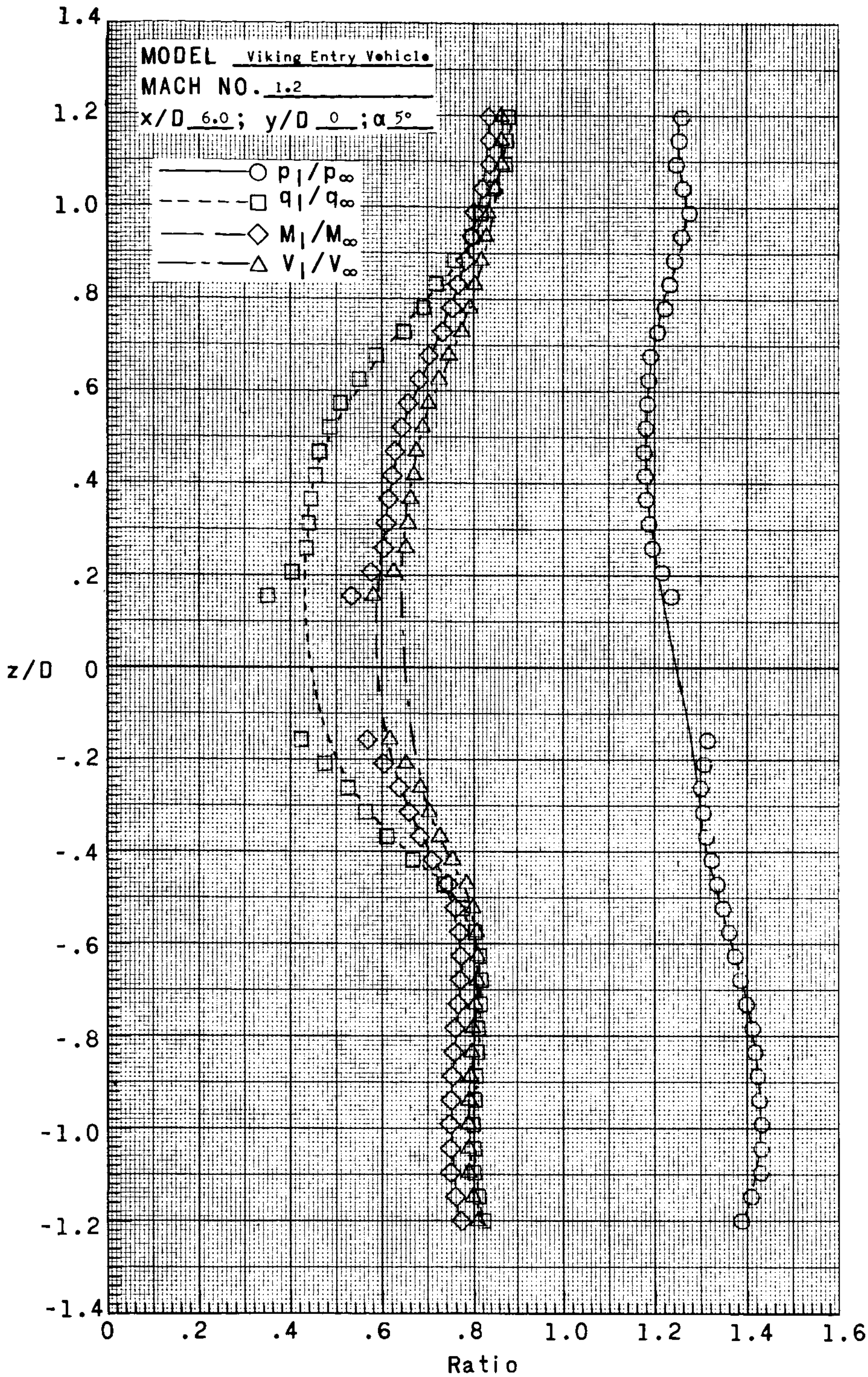
(e) x/D = 10.00.

Figure 15.- Continued.



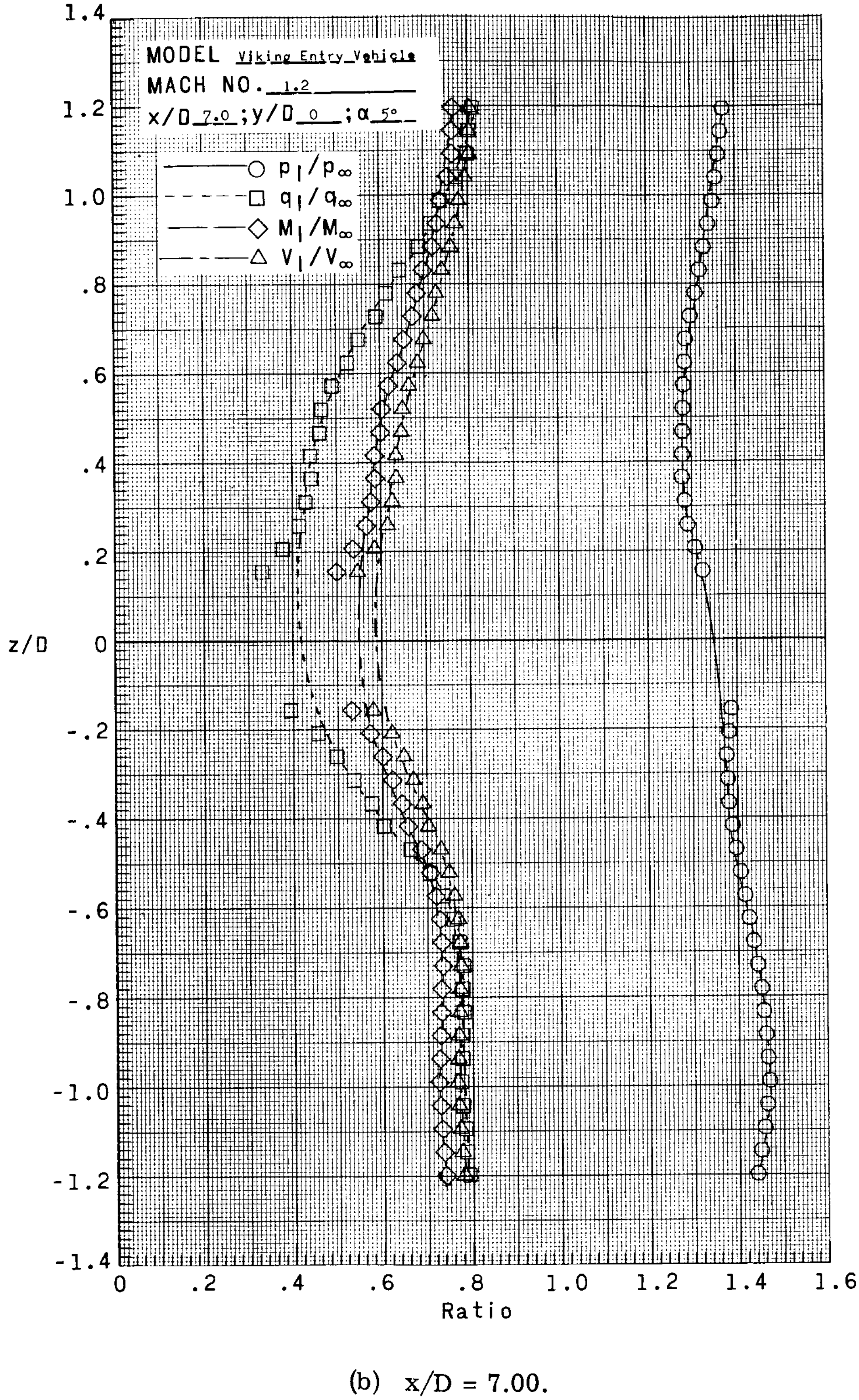
(f) x/D = 11.00.

Figure 15.- Concluded.



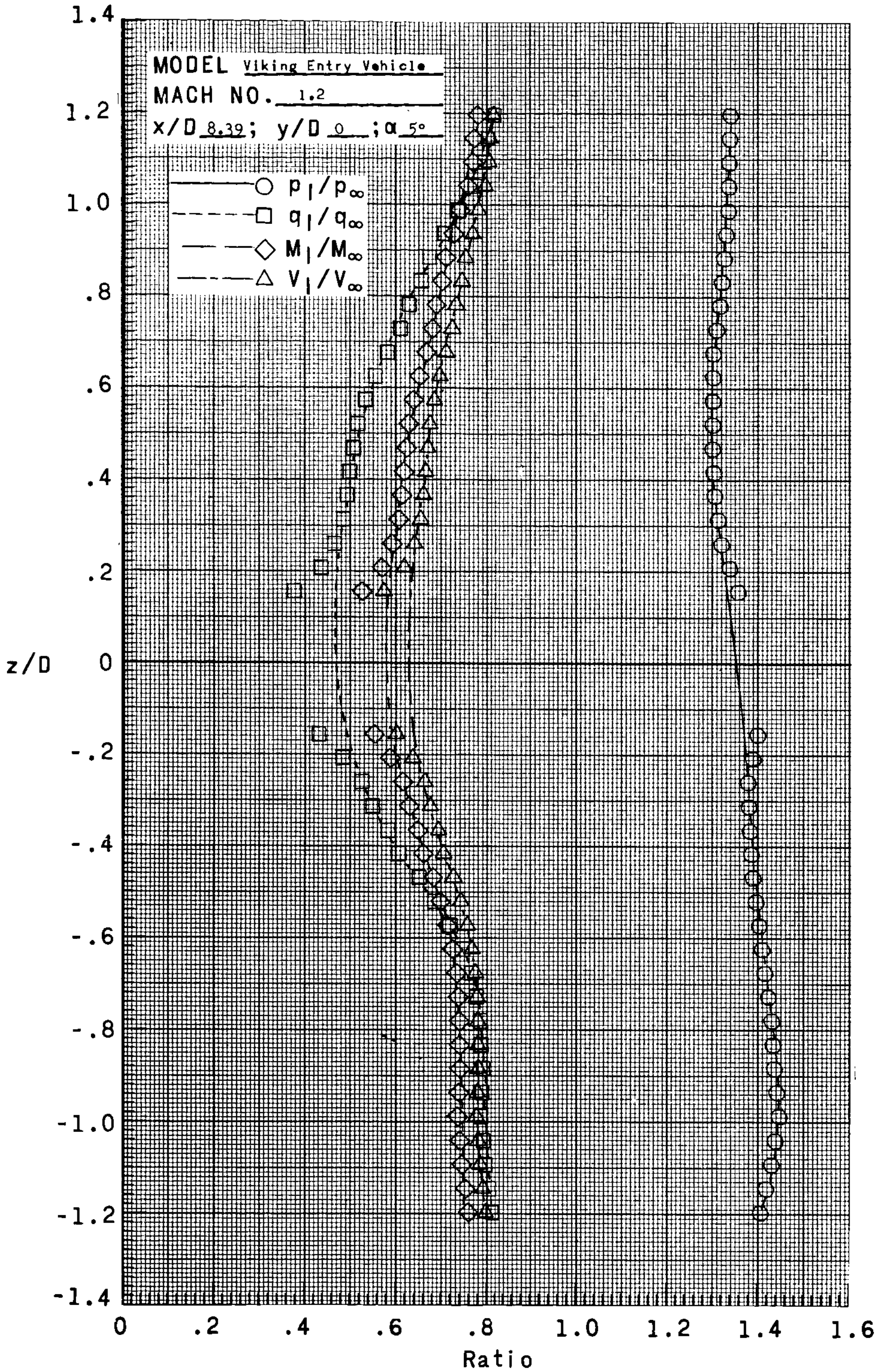
(a) x/D = 6.00.

Figure 16.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 1.20, y/D = 0, $\alpha = 5^\circ$, and Reynolds number of 13.83×10^6 per meter (4.22×10^6 per foot).



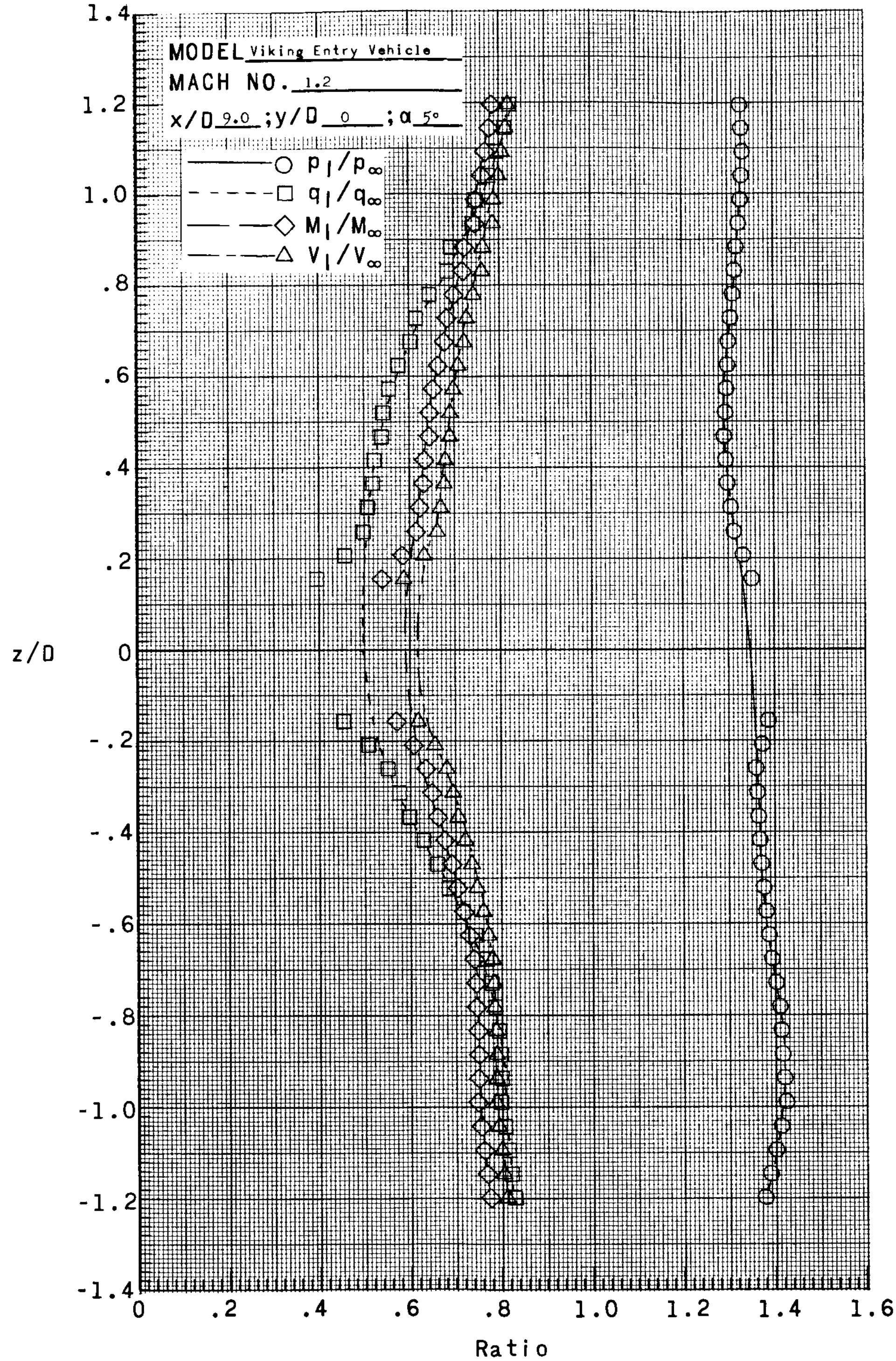
(b) x/D = 7.00.

Figure 16.- Continued.



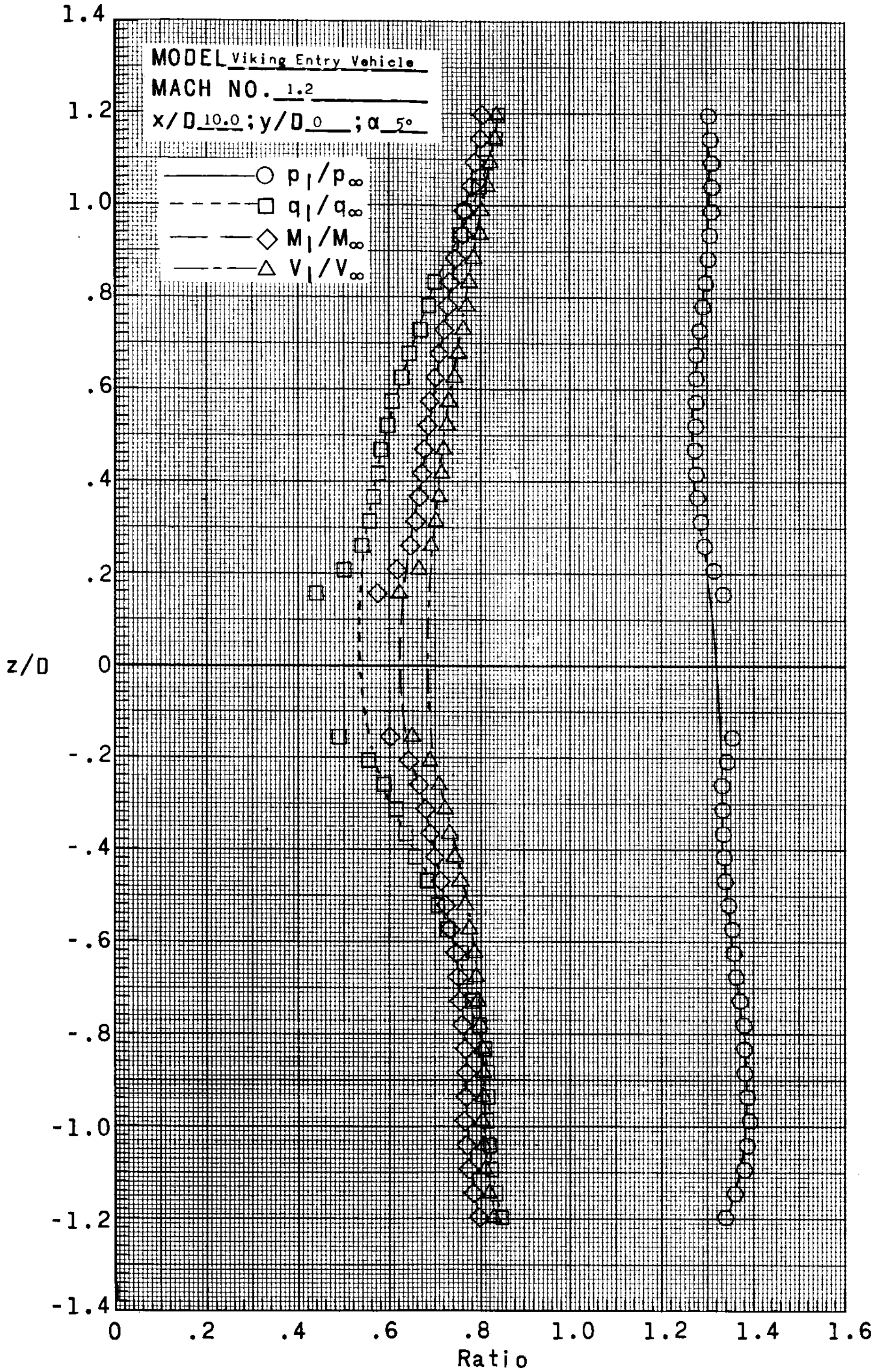
(c) x/D = 8.39.

Figure 16.- Continued.



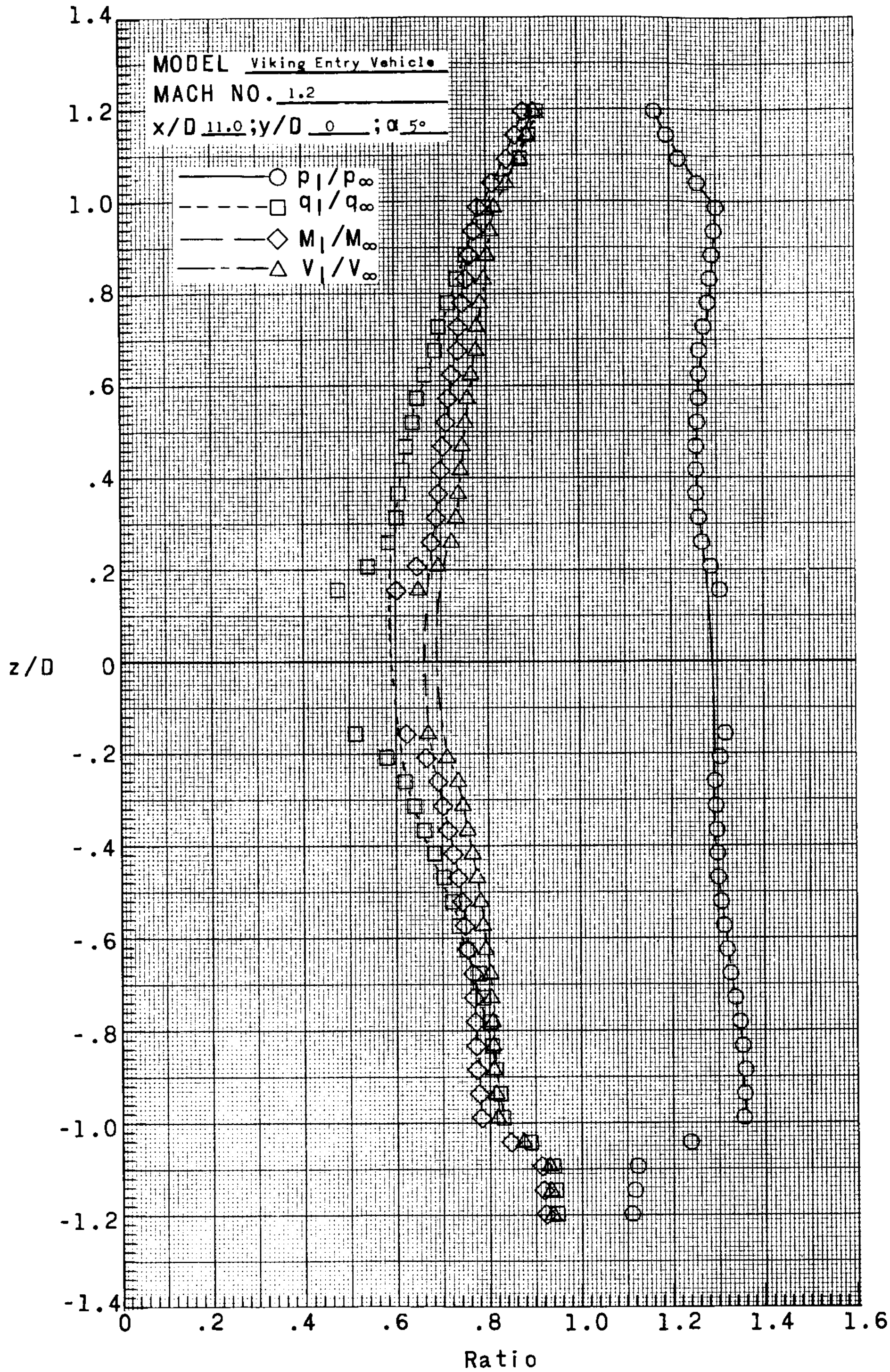
(d) x/D = 9.00.

Figure 16.- Continued.



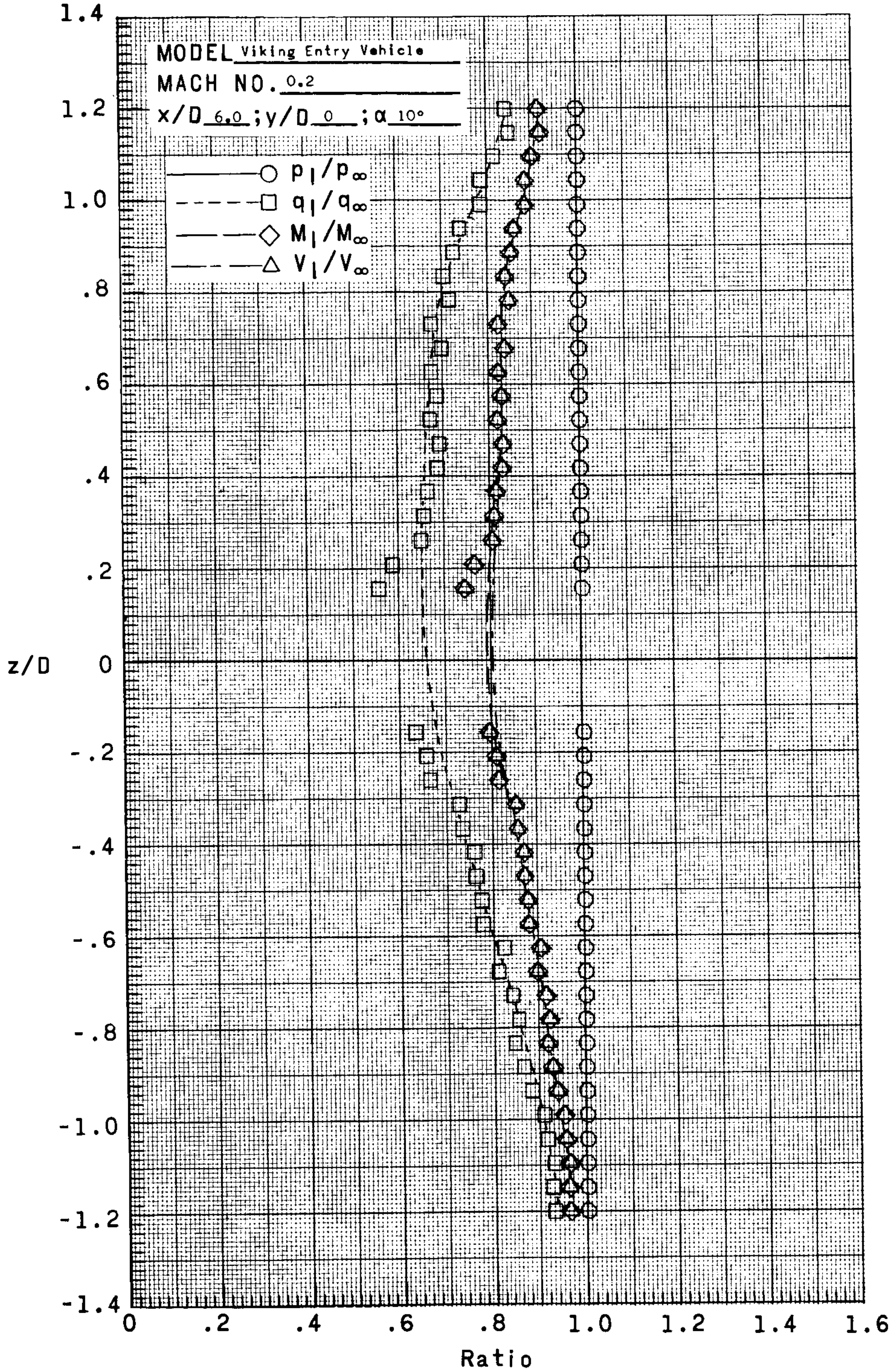
(e) x/D = 10.00.

Figure 16.- Continued.



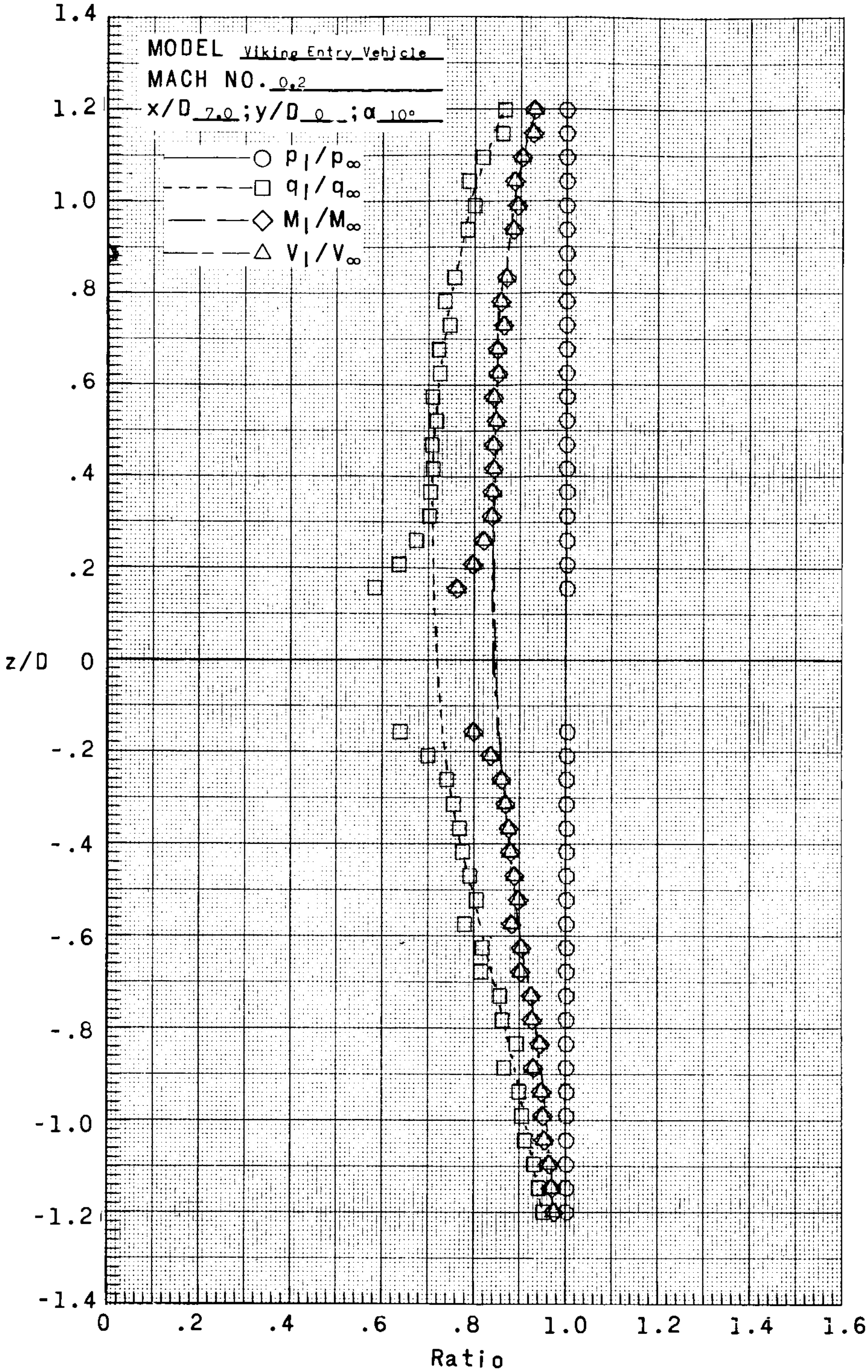
(f) x/D = 11.00.

Figure 16.- Concluded.



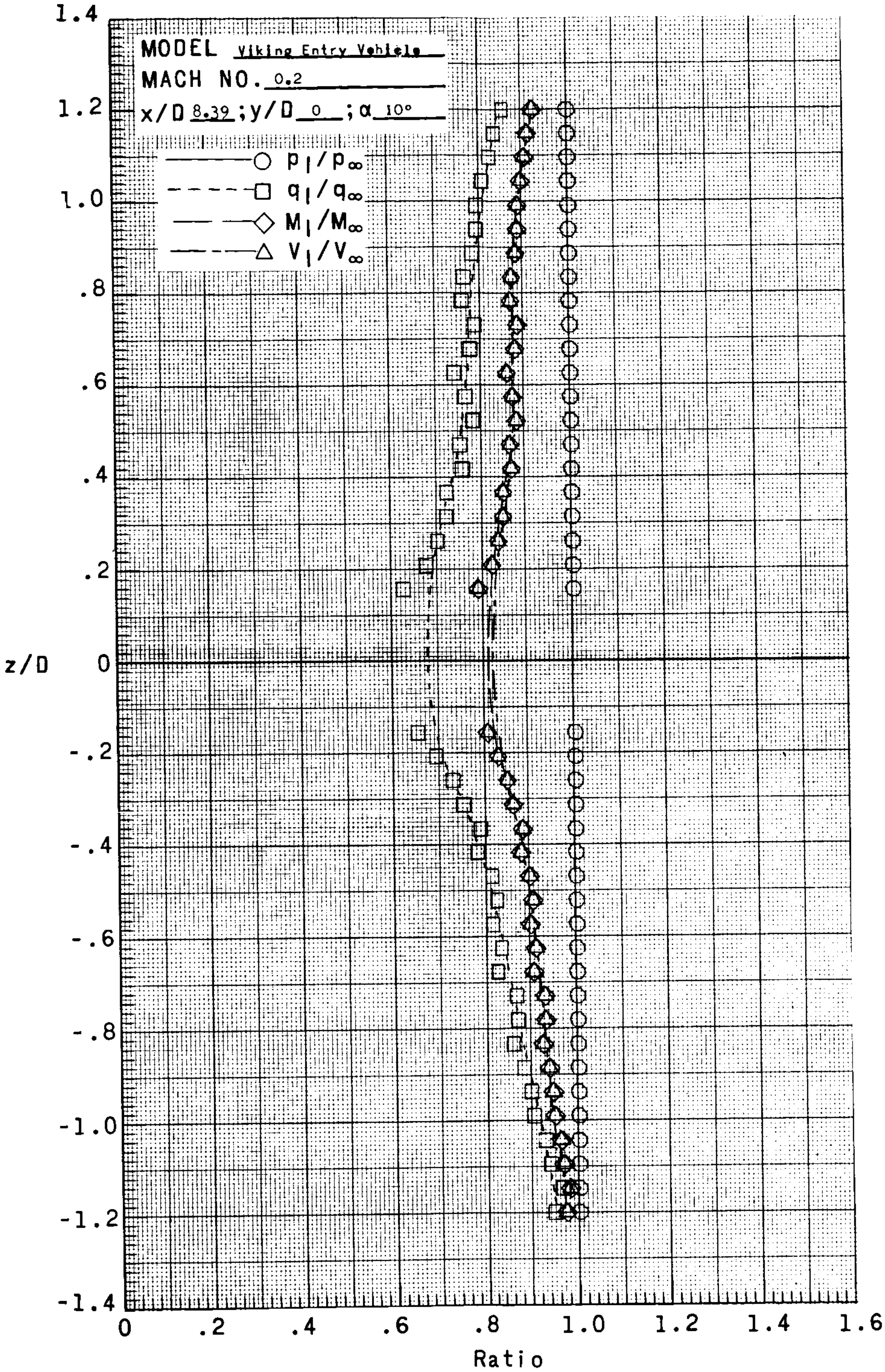
(a) $x/D = 6.00$.

Figure 17.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.20, $y/D = 0$, $\alpha = 10^\circ$, and Reynolds number of 3.97×10^6 per meter (1.21×10^6 per foot).



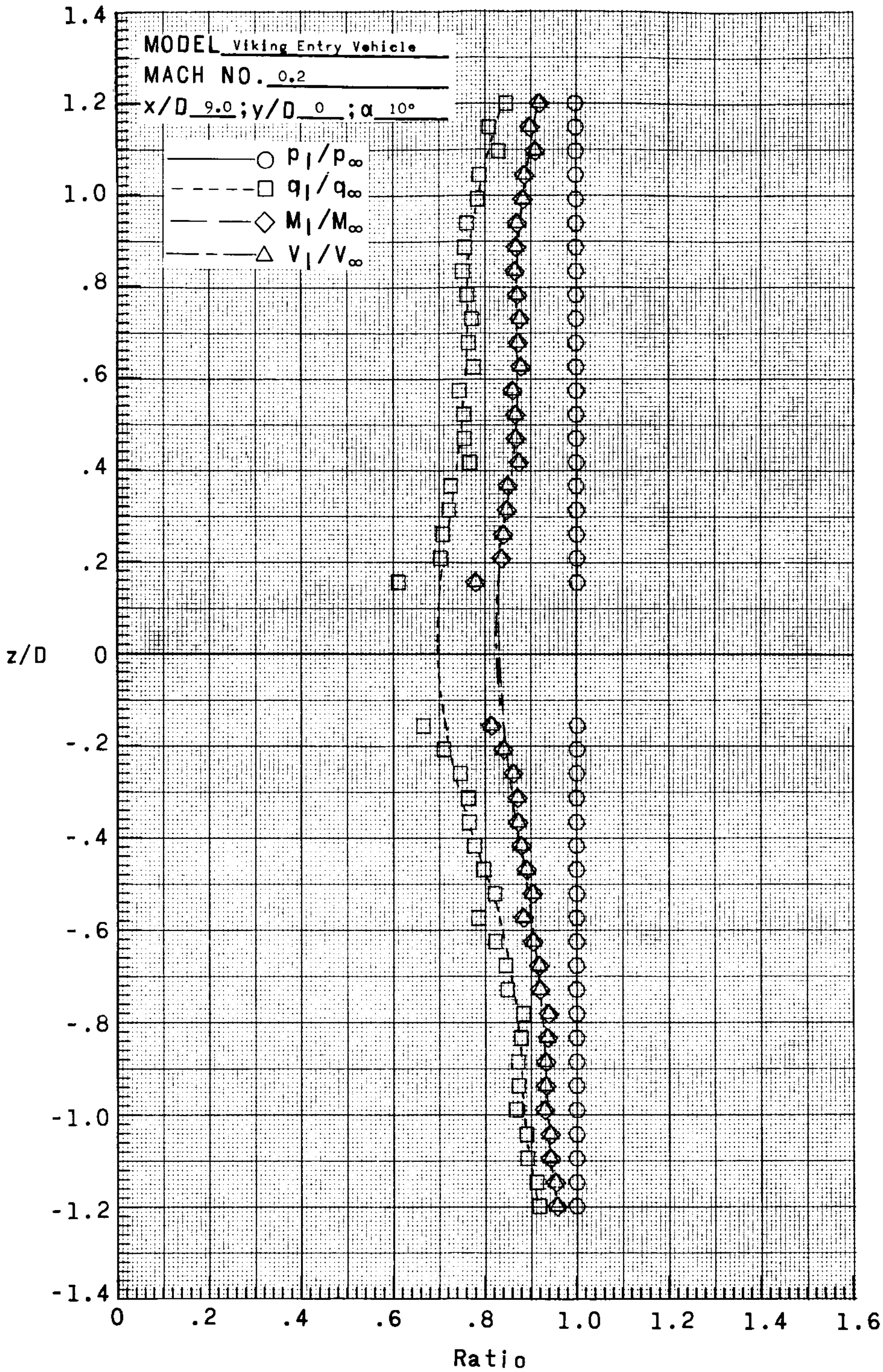
(b) x/D = 7.00.

Figure 17.- Continued.



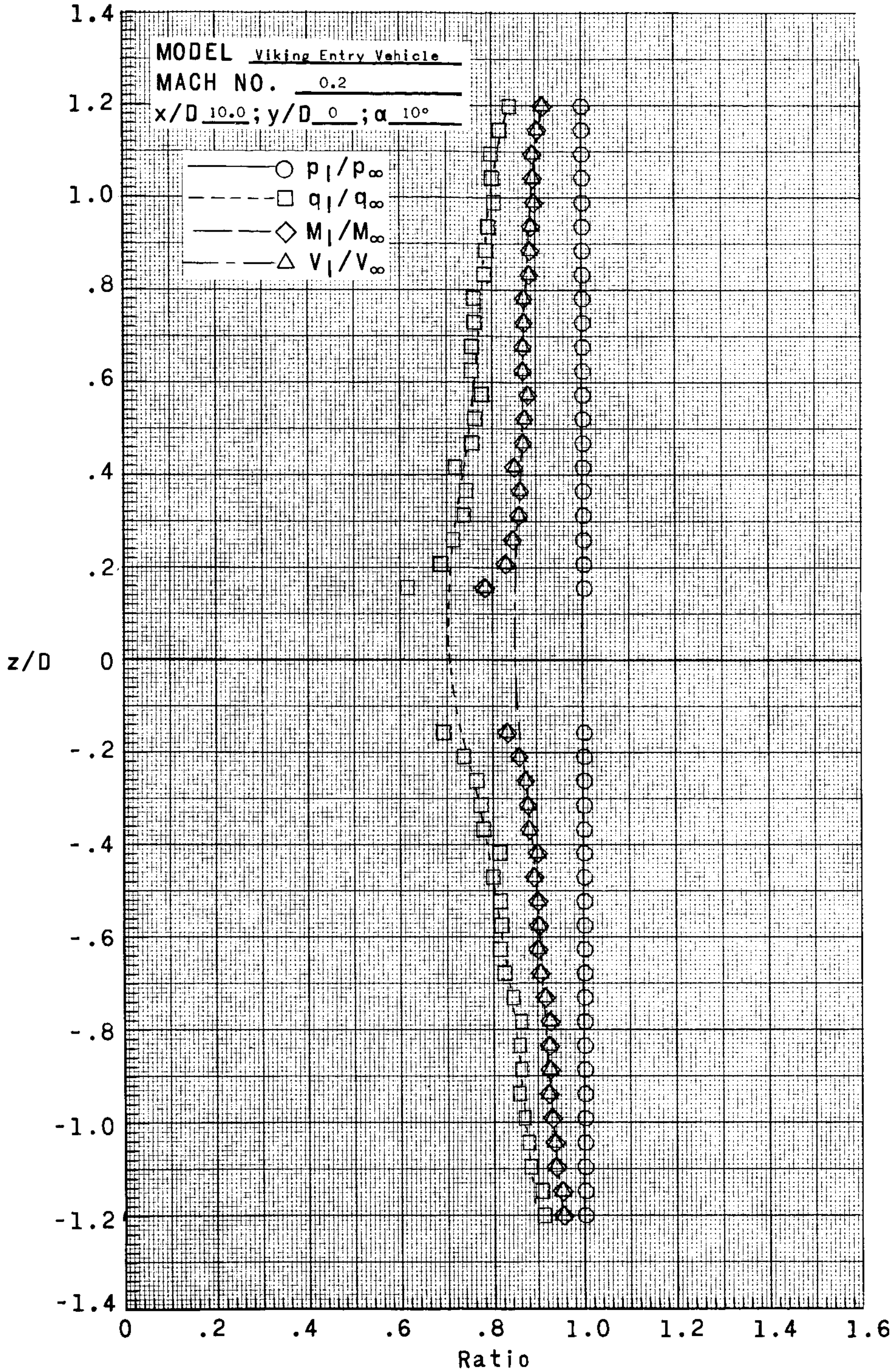
(c) x/D = 8.39.

Figure 17.- Continued.



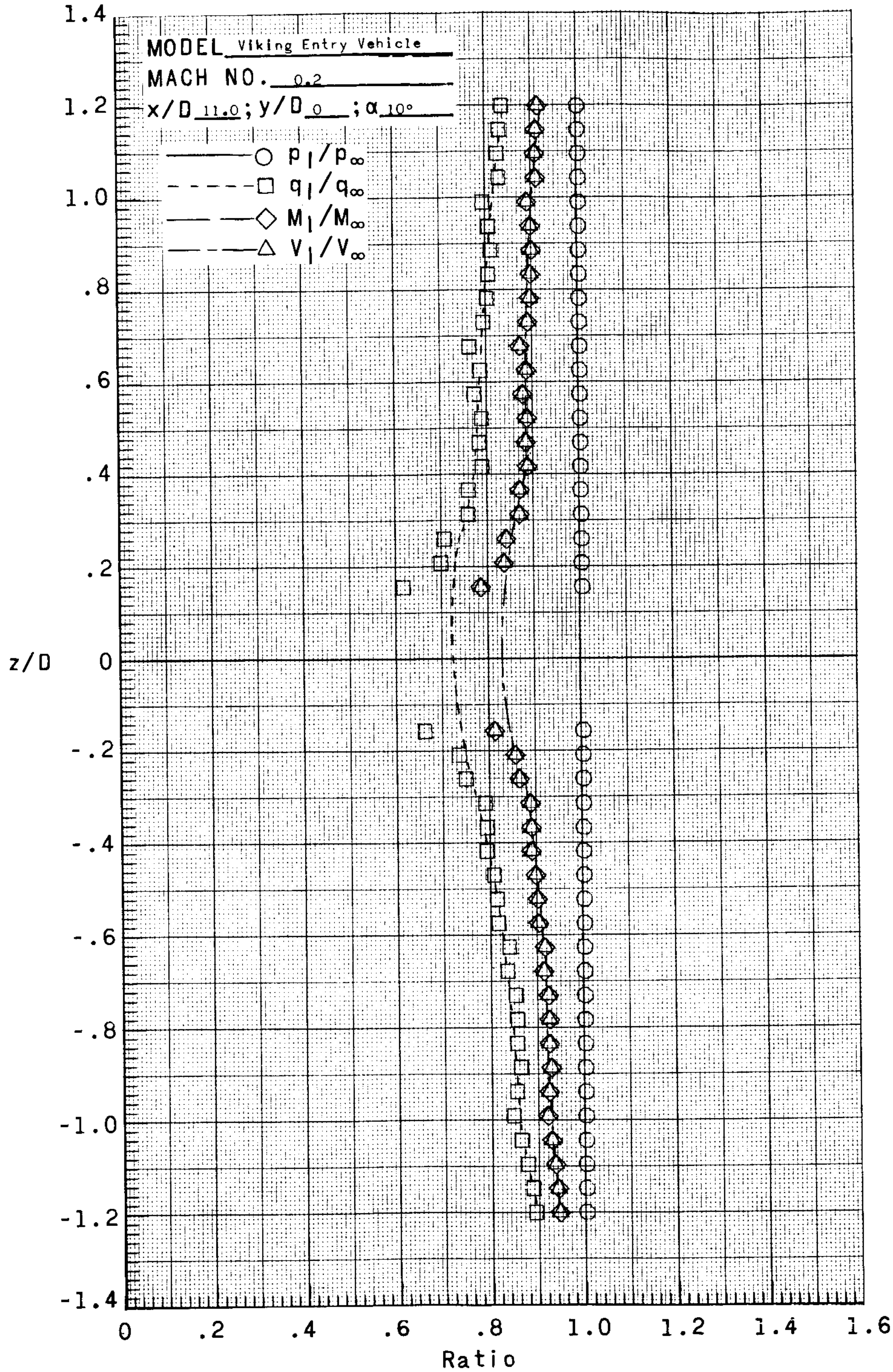
(d) x/D = 9.00.

Figure 17.- Continued.



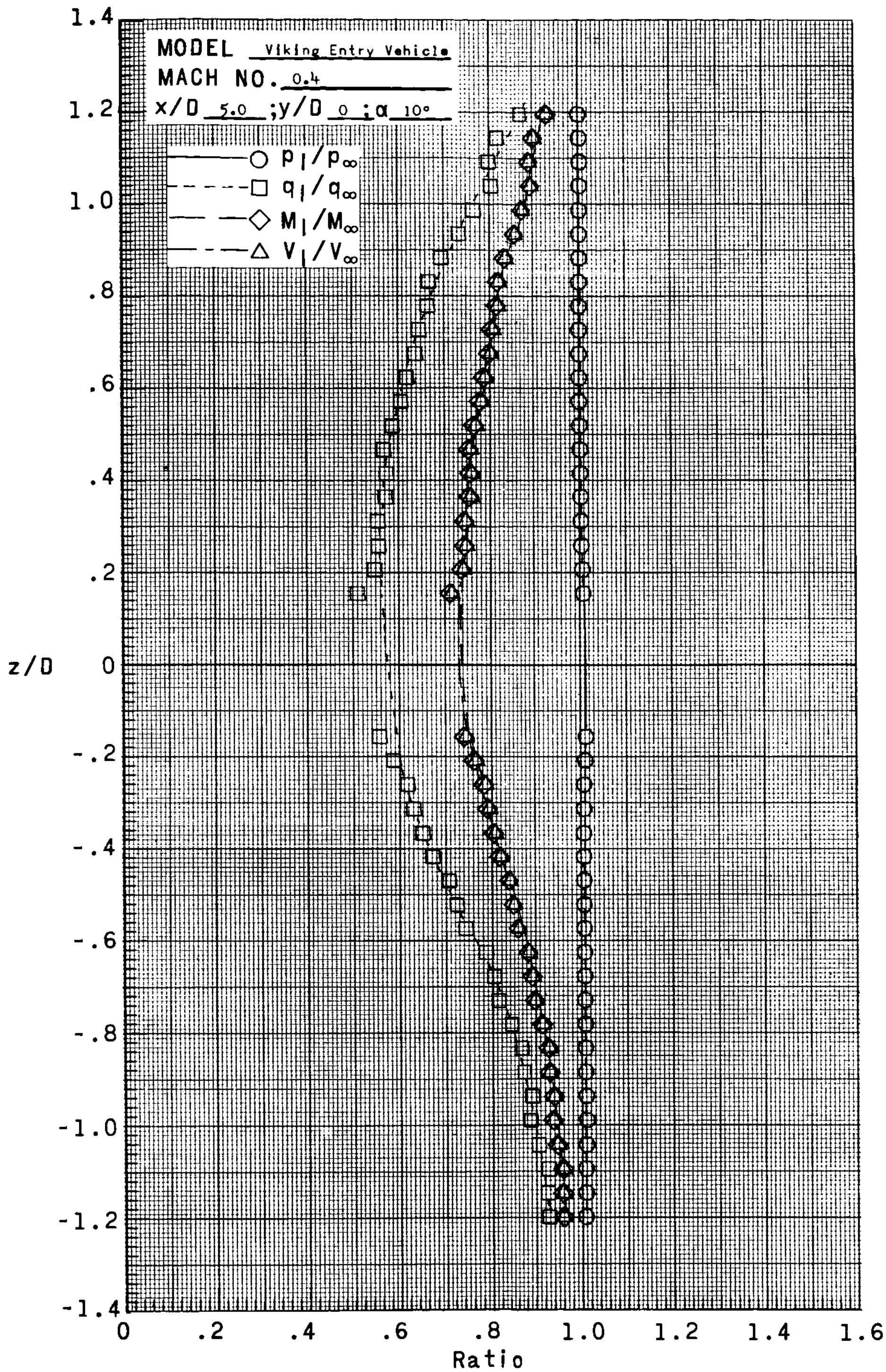
(e) x/D = 10.00.

Figure 17.- Continued.



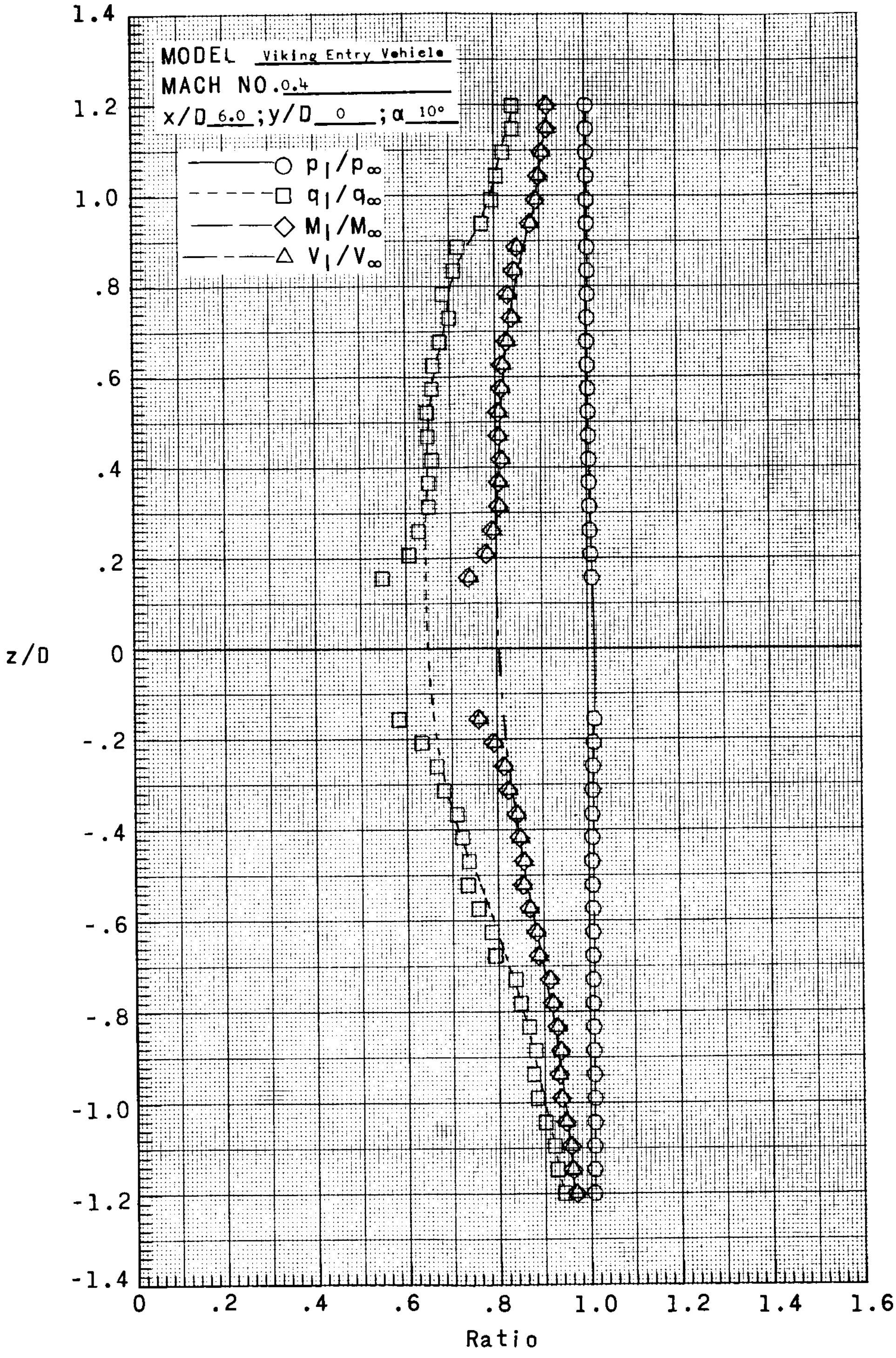
(f) x/D = 11.00.

Figure 17.- Concluded.



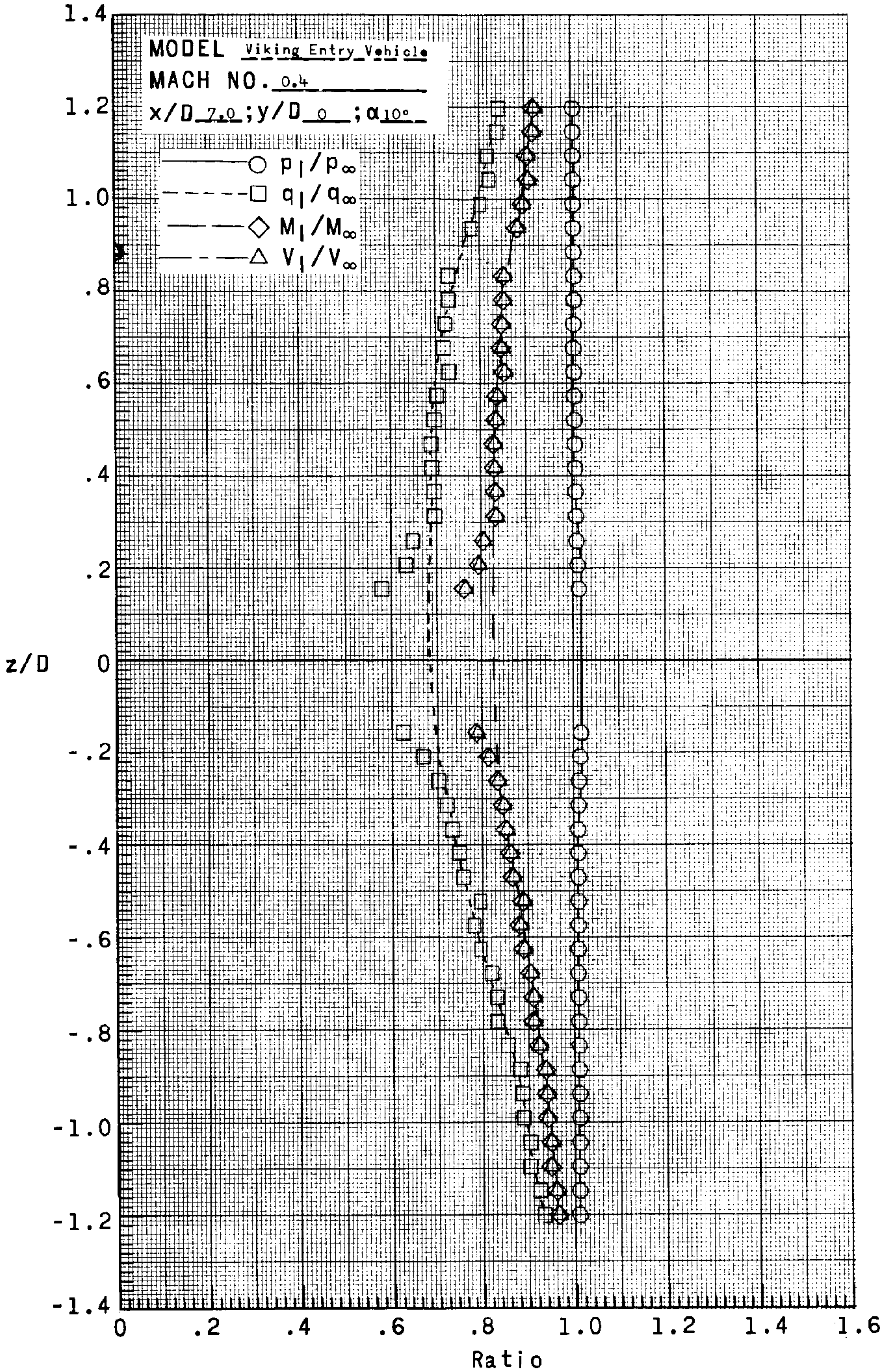
(a) x/D = 5.00.

Figure 18.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.40, y/D = 0, $\alpha = 10^{\circ}$, and Reynolds number of 7.54×10^{6} per meter (2.30×10^{6} per foot).



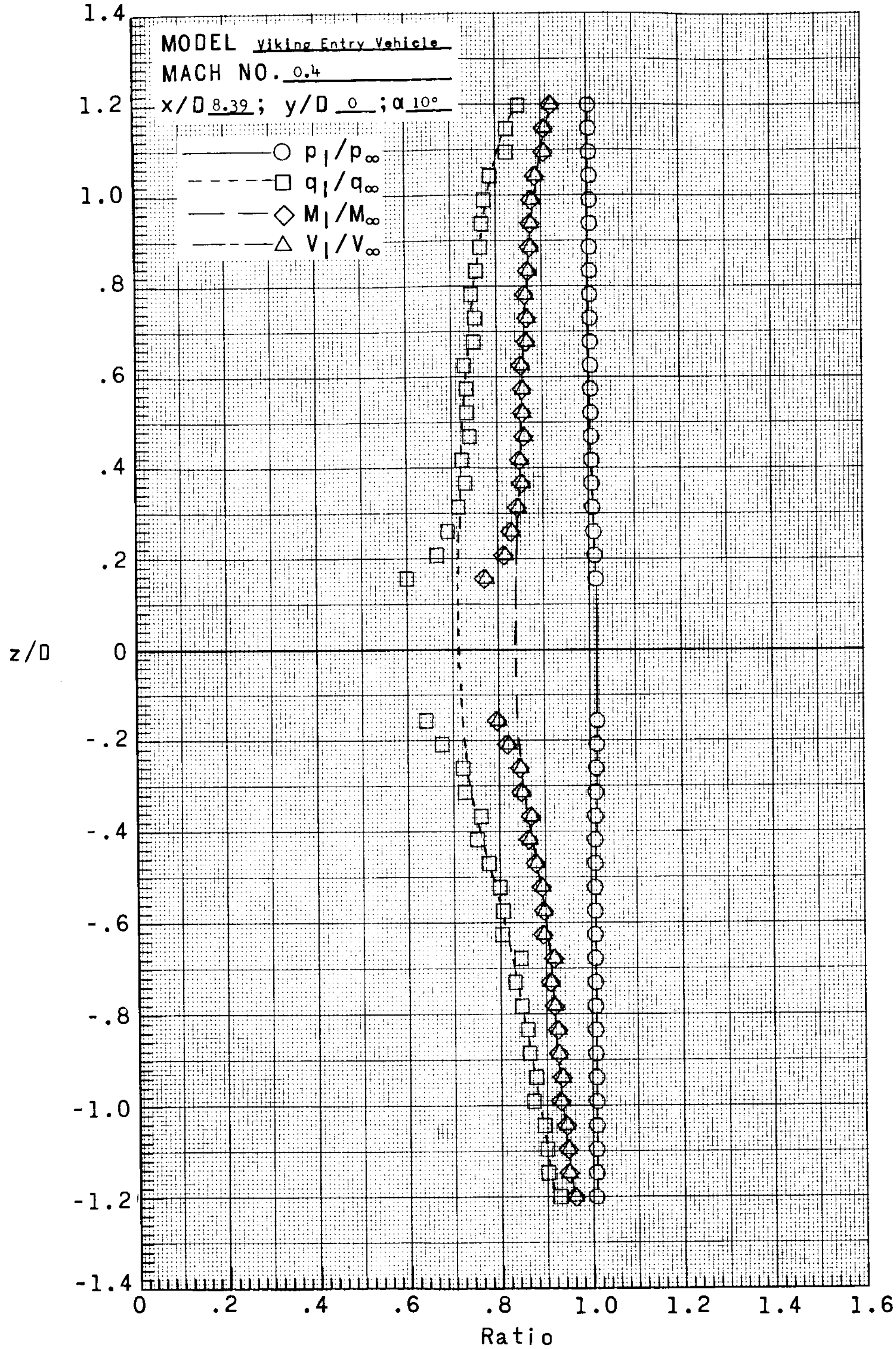
(b) x/D = 6.00.

Figure 18.- Continued.



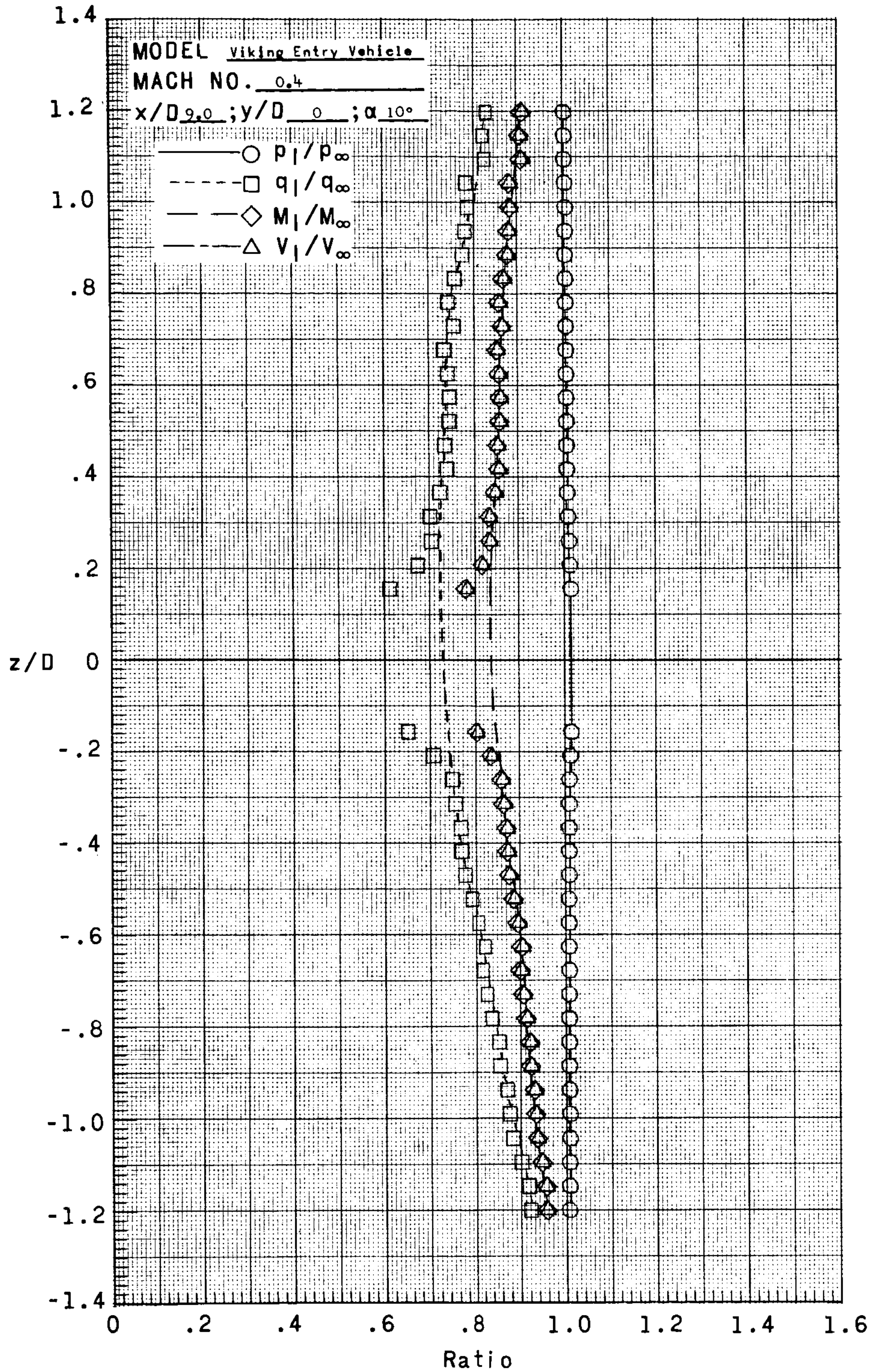
(c) x/D = 7.00.

Figure 18.- Continued.



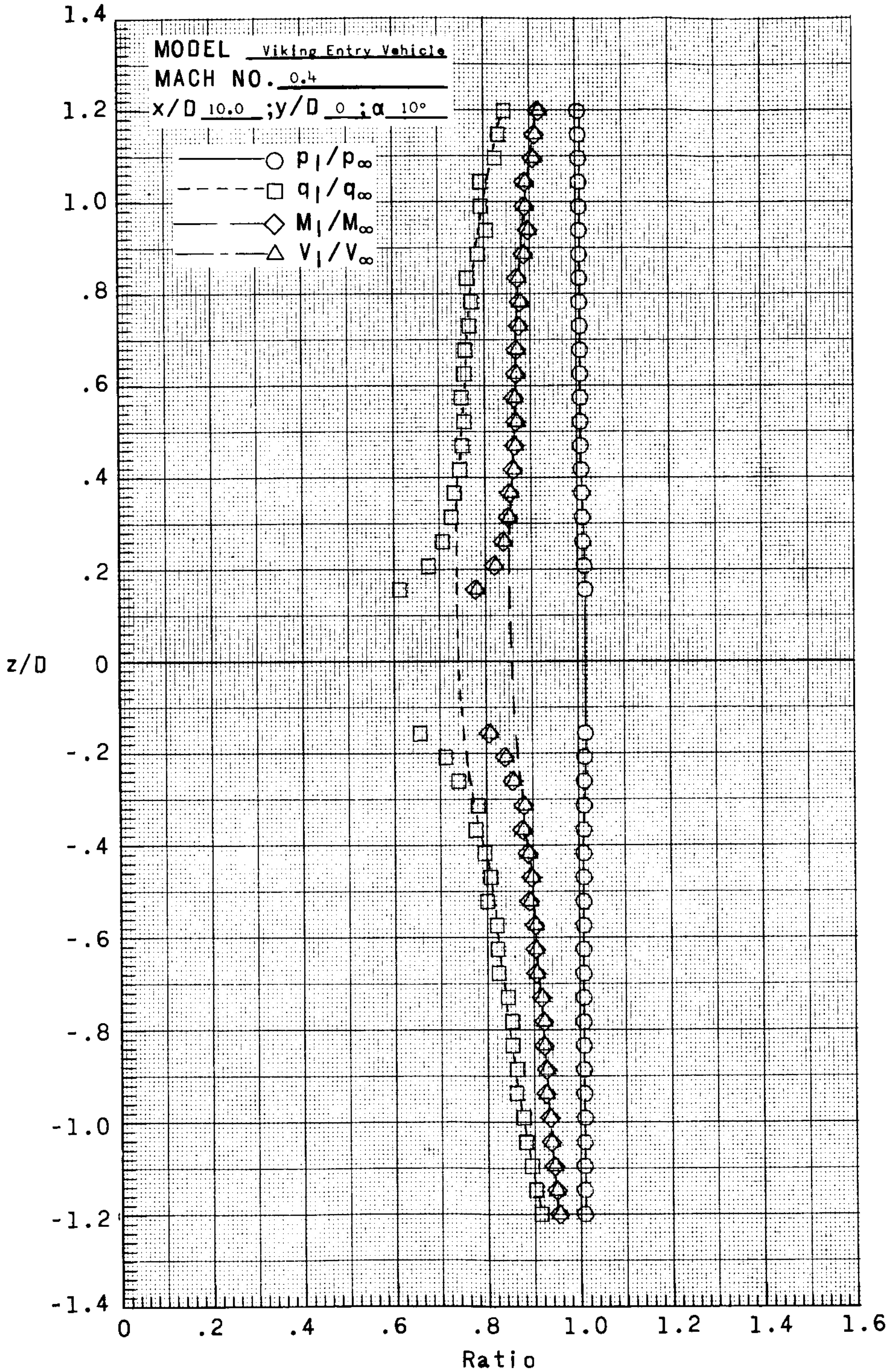
(d) x/D = 8.39.

Figure 18.- Continued.



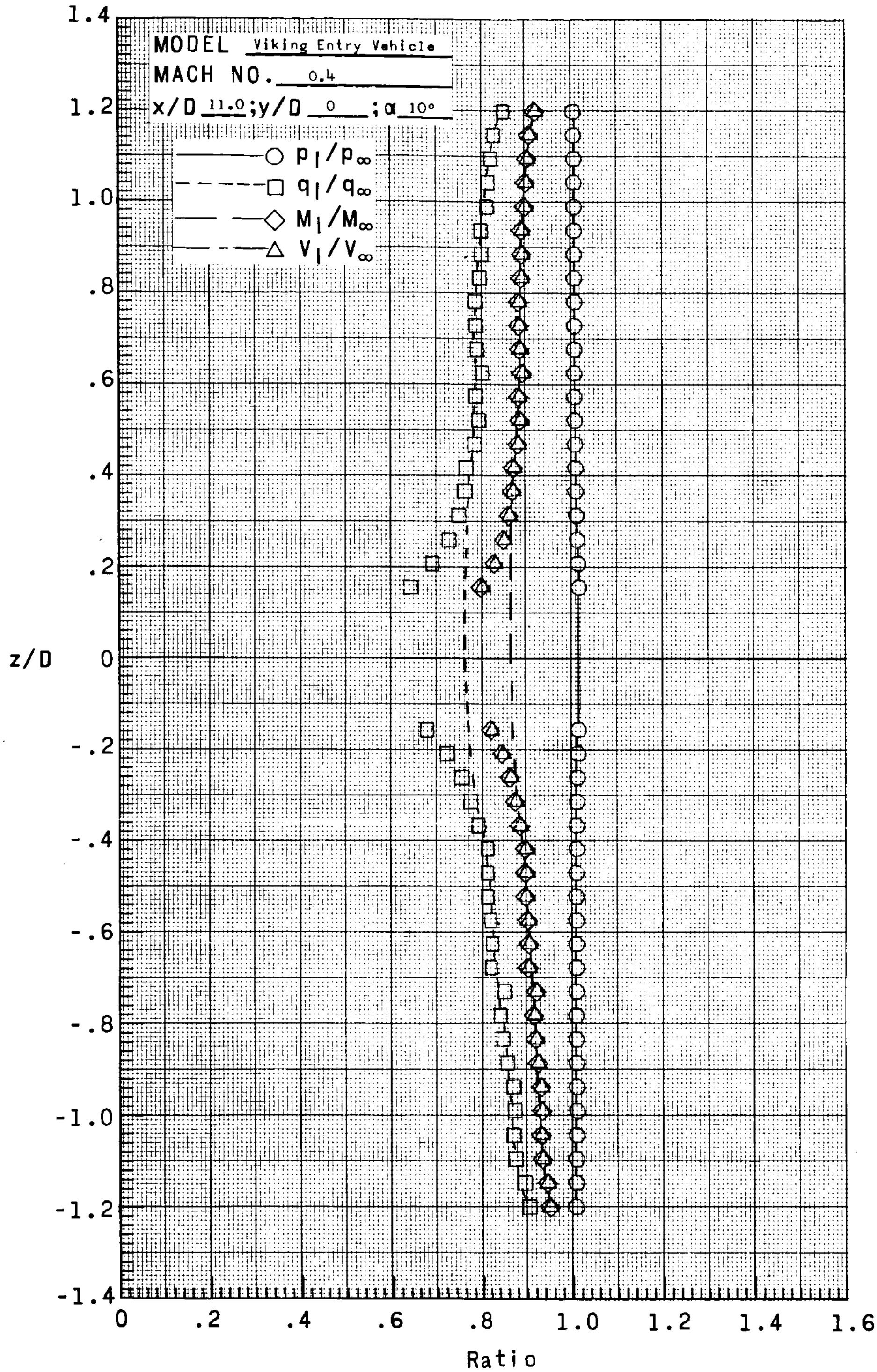
(e) x/D = 9.00.

Figure 18.- Continued.



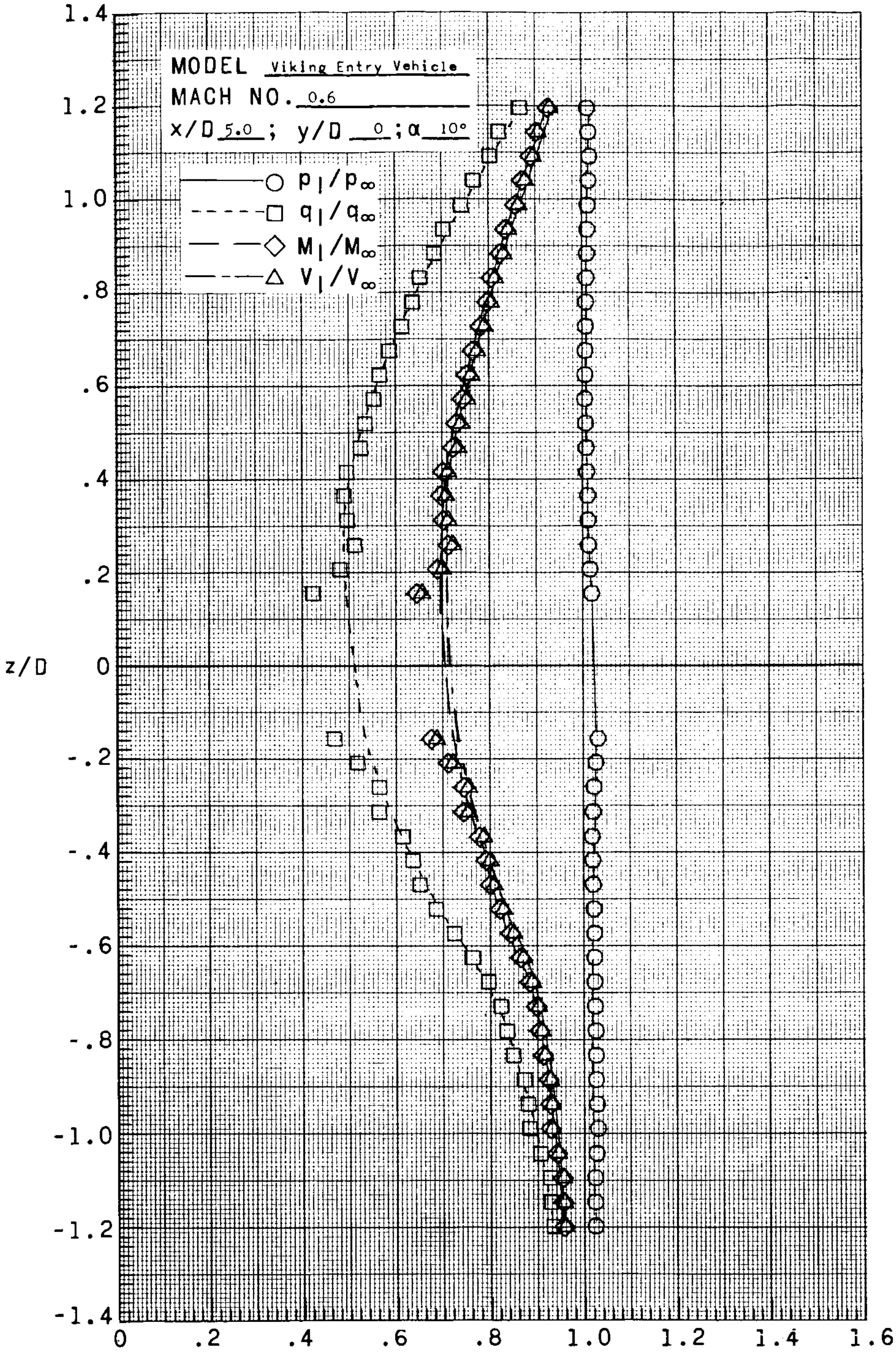
(f) x/D = 10.00.

Figure 18.- Continued.



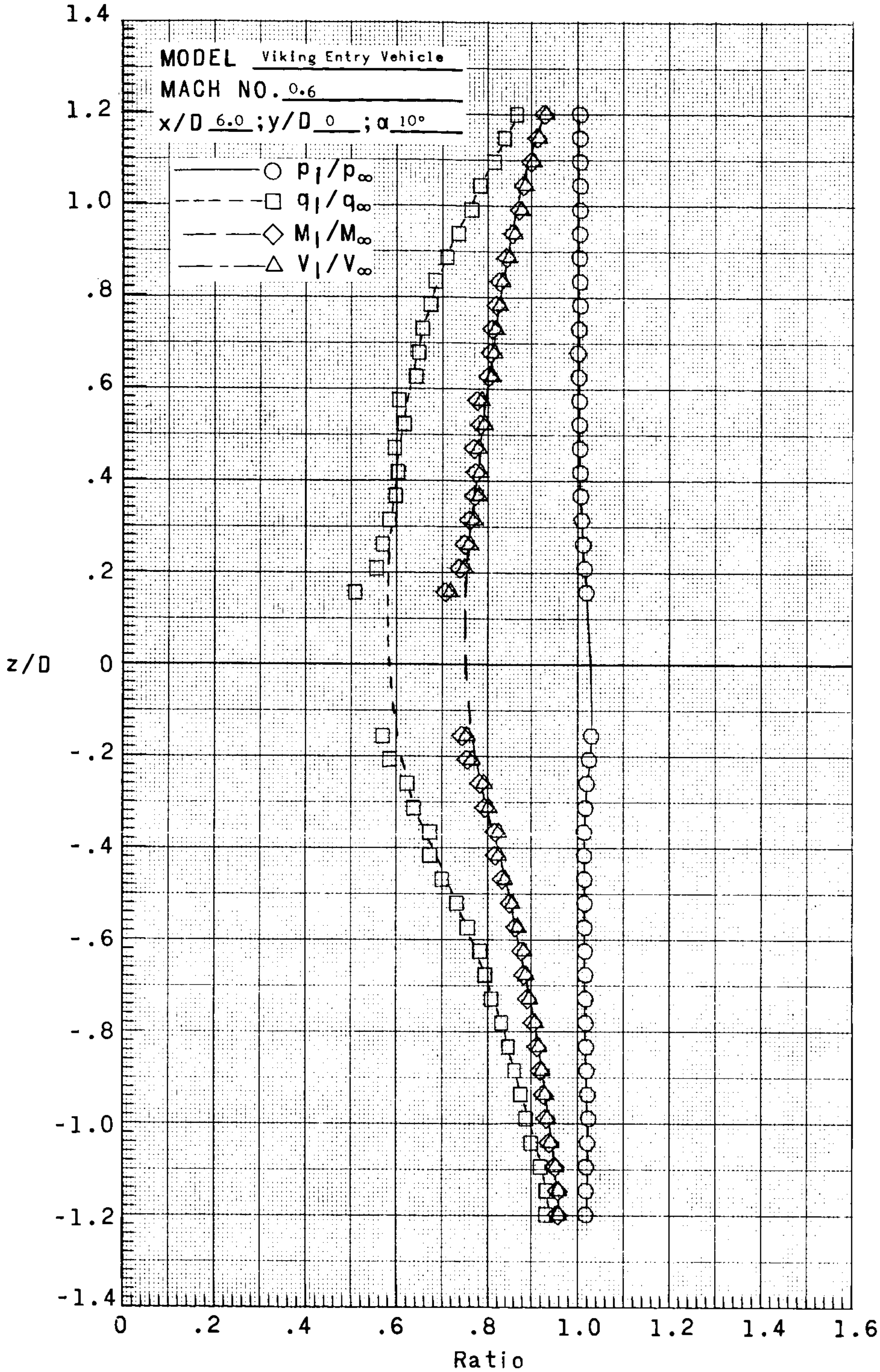
(g) x/D = 11.00.

Figure 18.- Concluded.



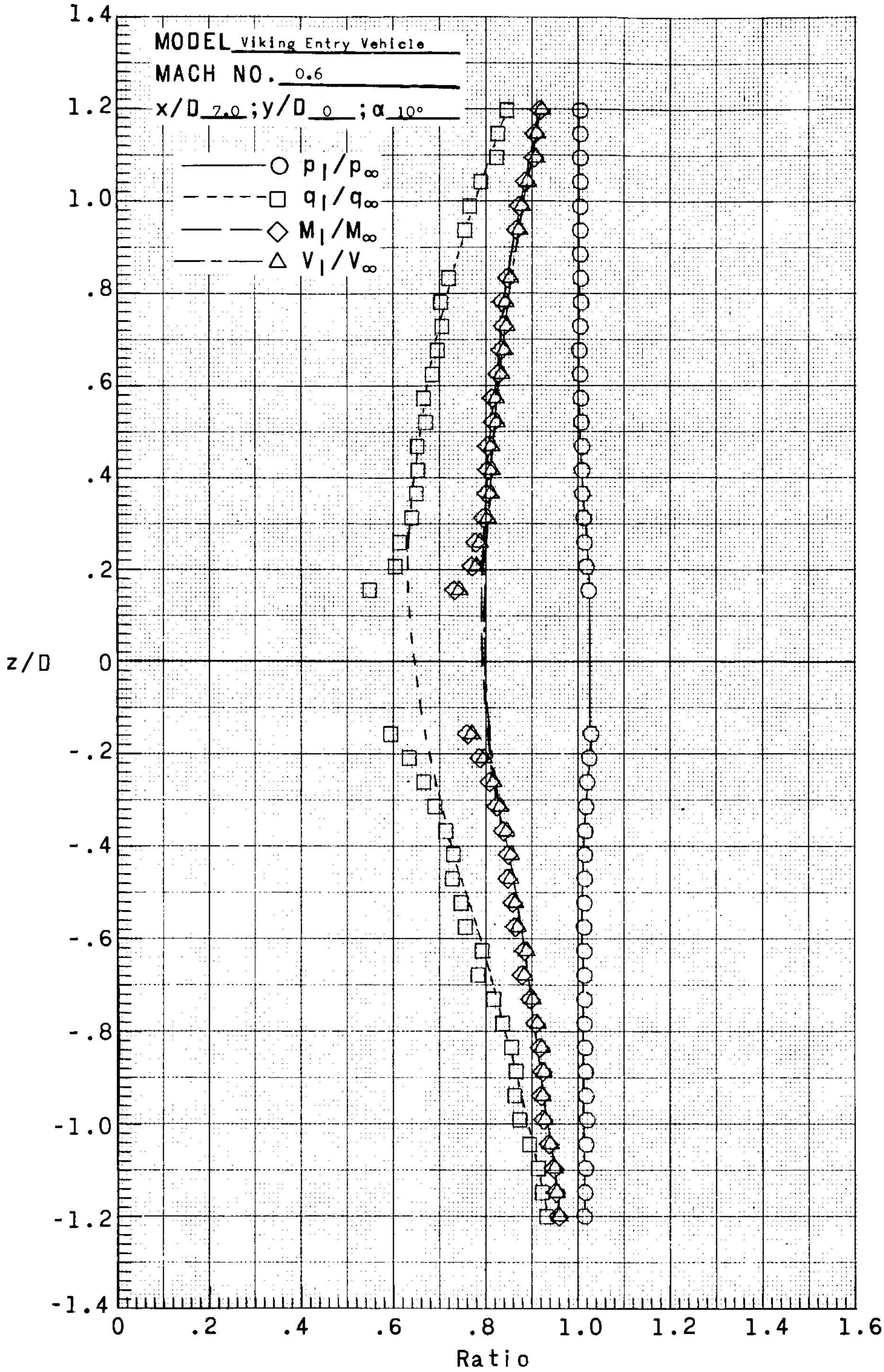
(a) x/D = 5.00.

Figure 19.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.60, y/D = 0, $\alpha = 10^\circ$, and Reynolds number of 10.40×10^6 per meter (3.17×10^6 per foot).



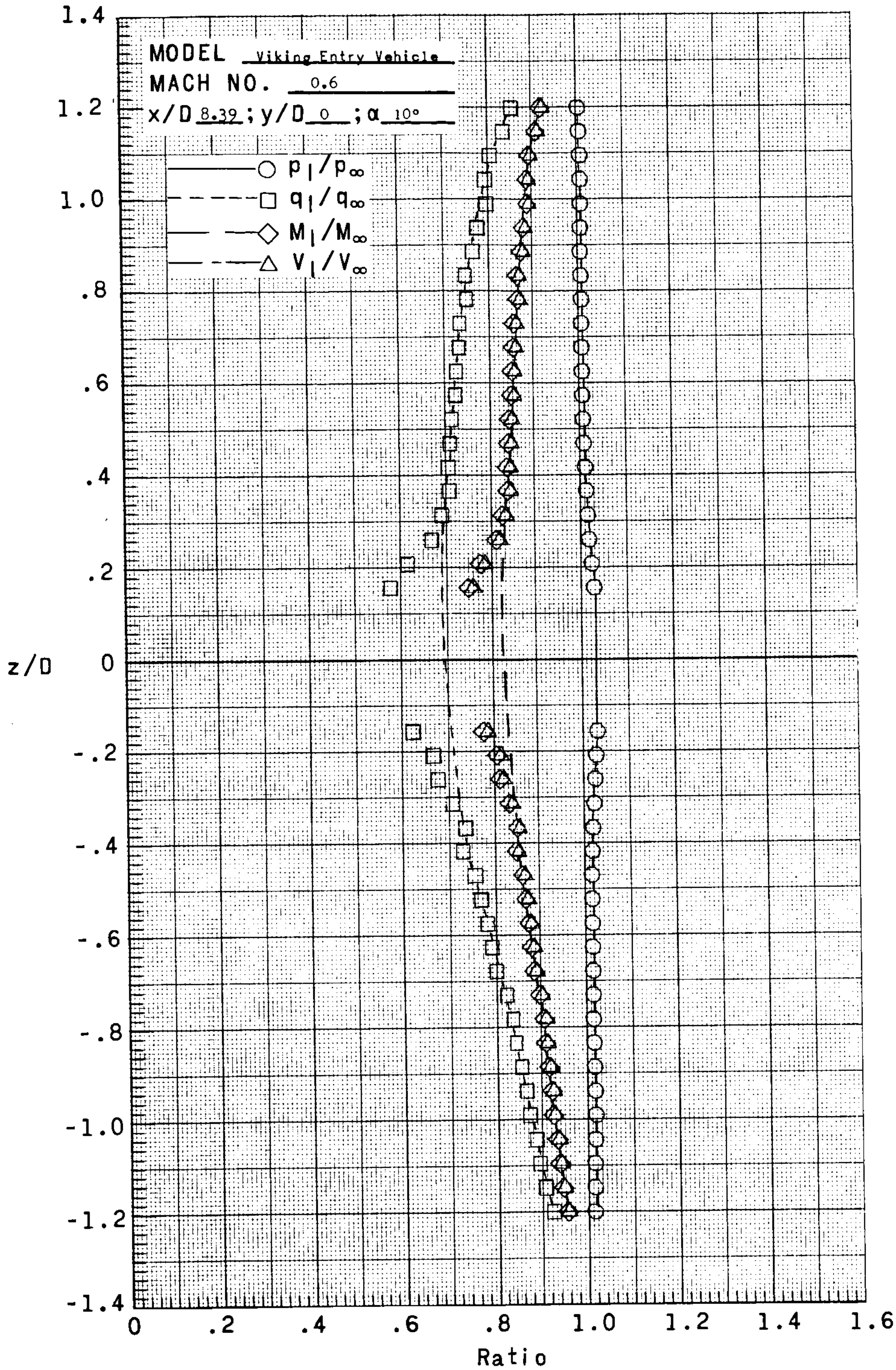
(b) x/D = 6.00.

Figure 19.- Continued.



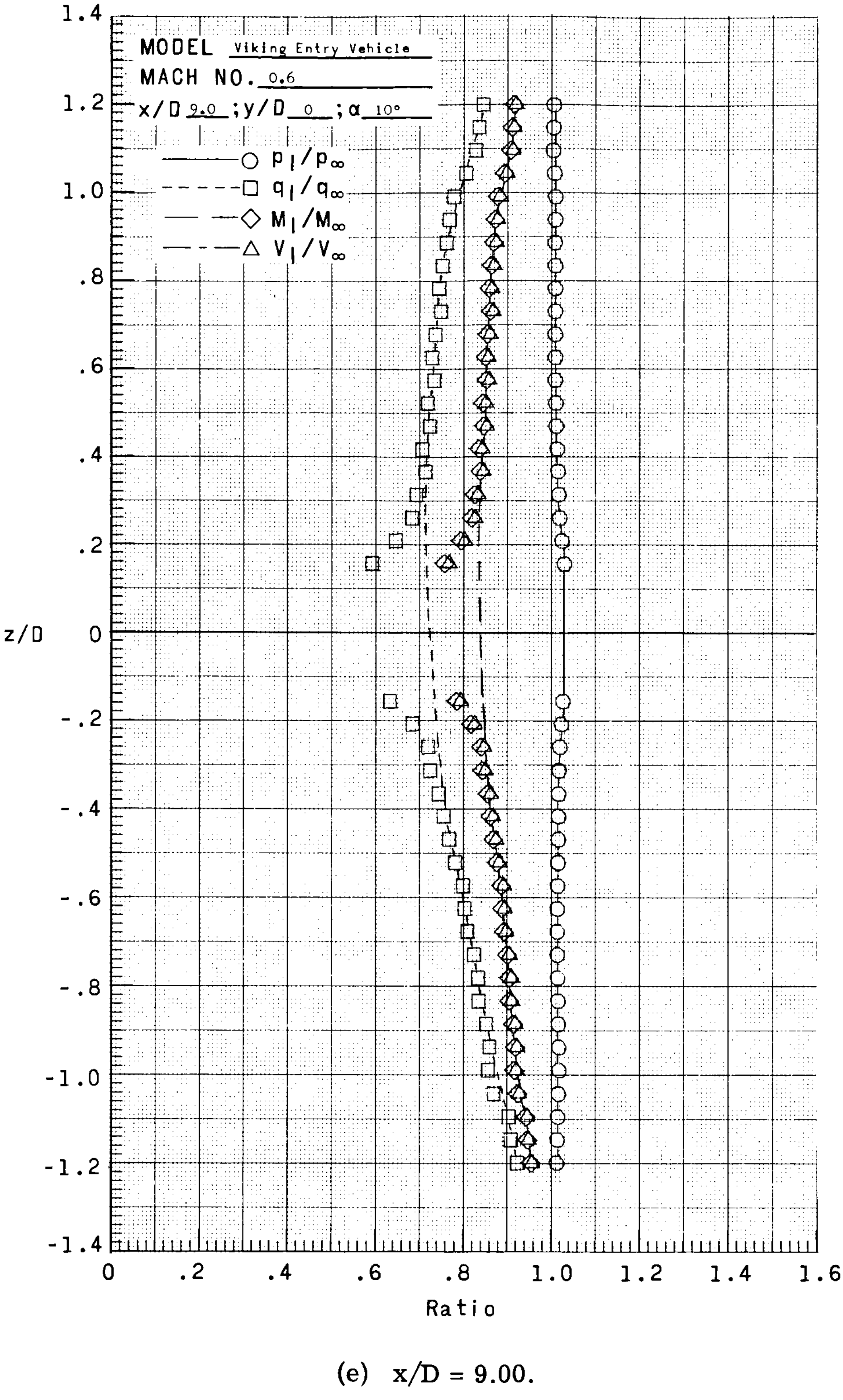
(c) x/D = 7.00.

Figure 19.- Continued.



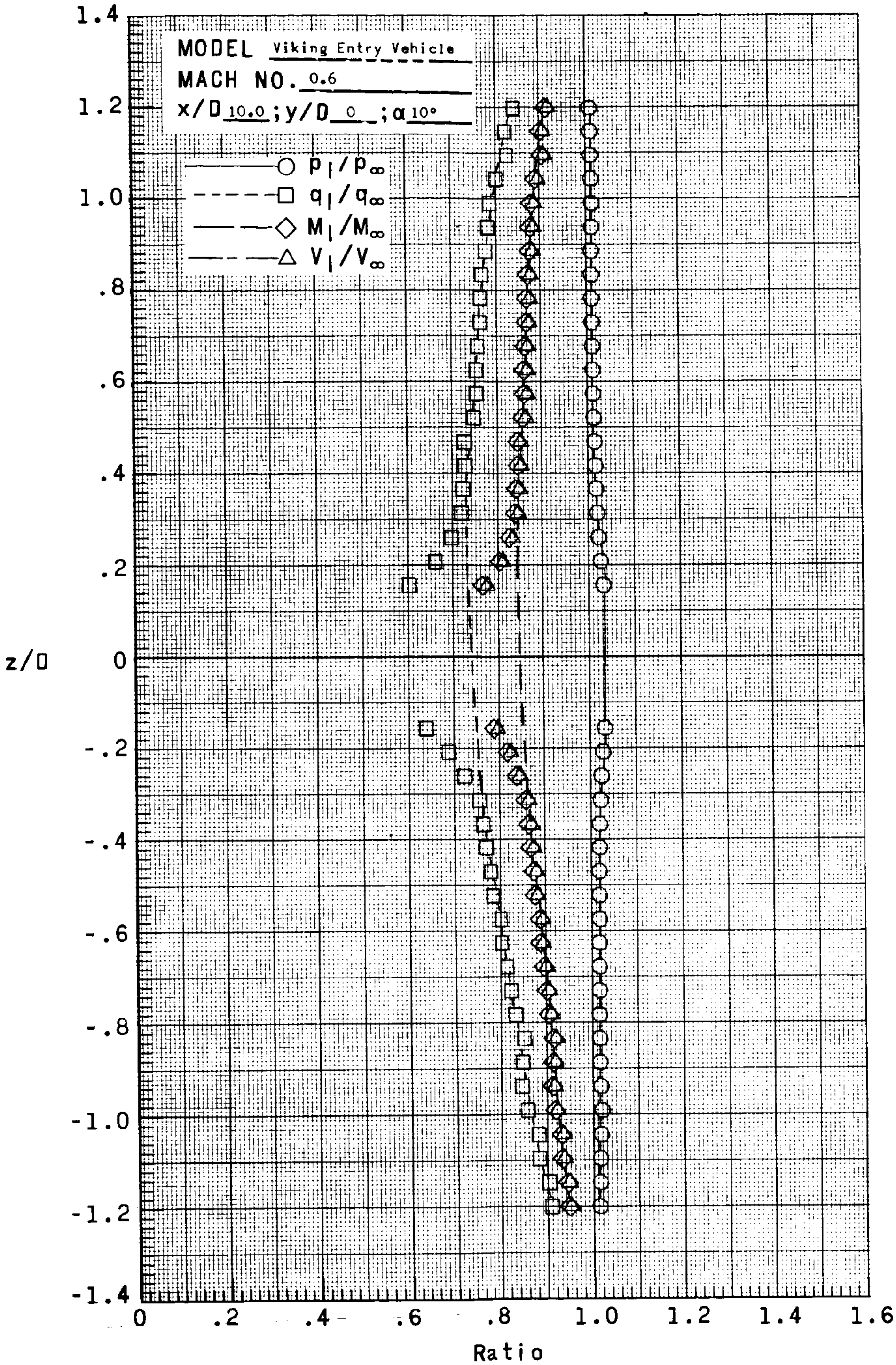
(d) x/D = 8.39.

Figure 19.- Continued.



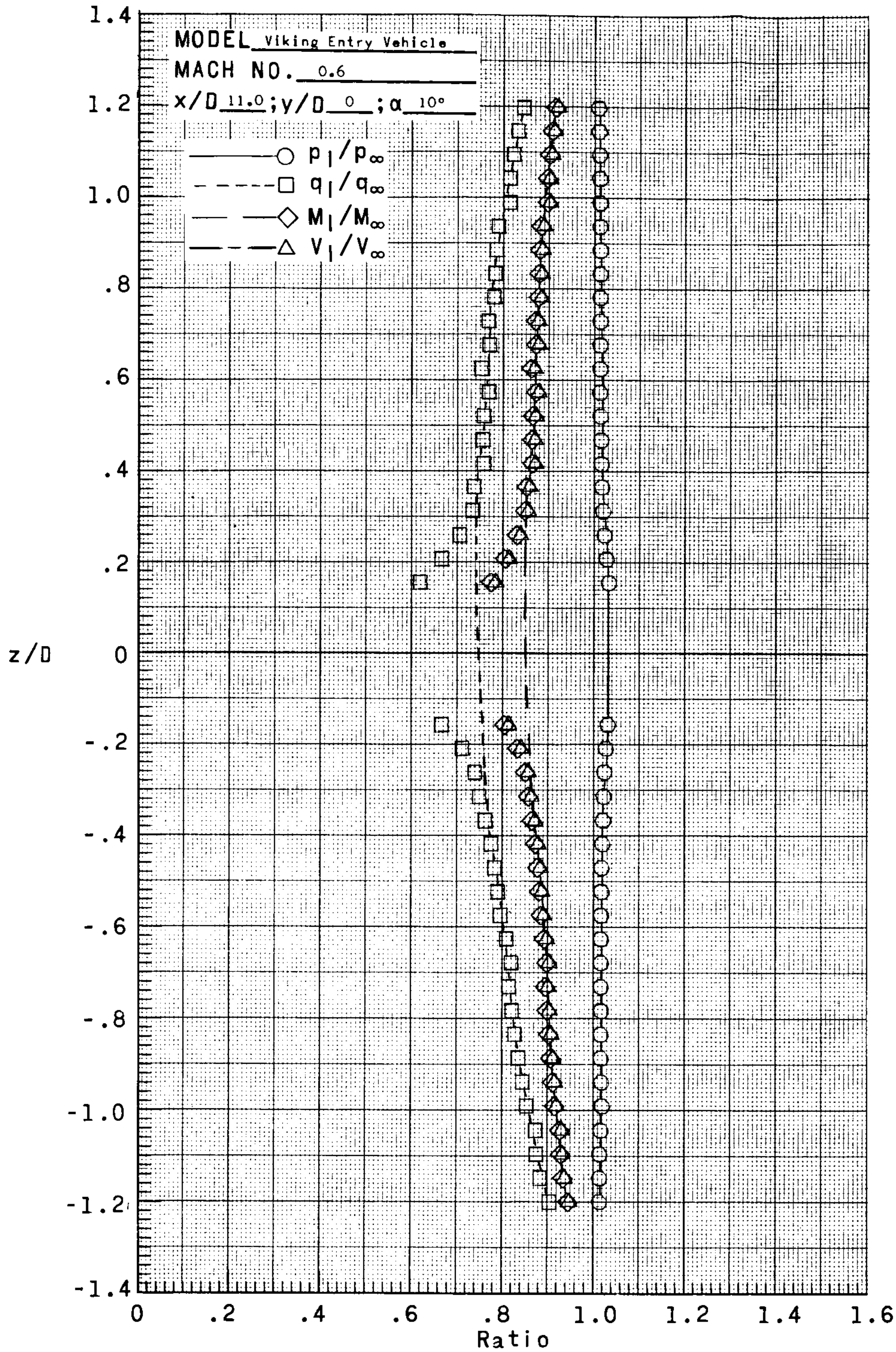
(e) x/D = 9.00.

Figure 19.- Continued.



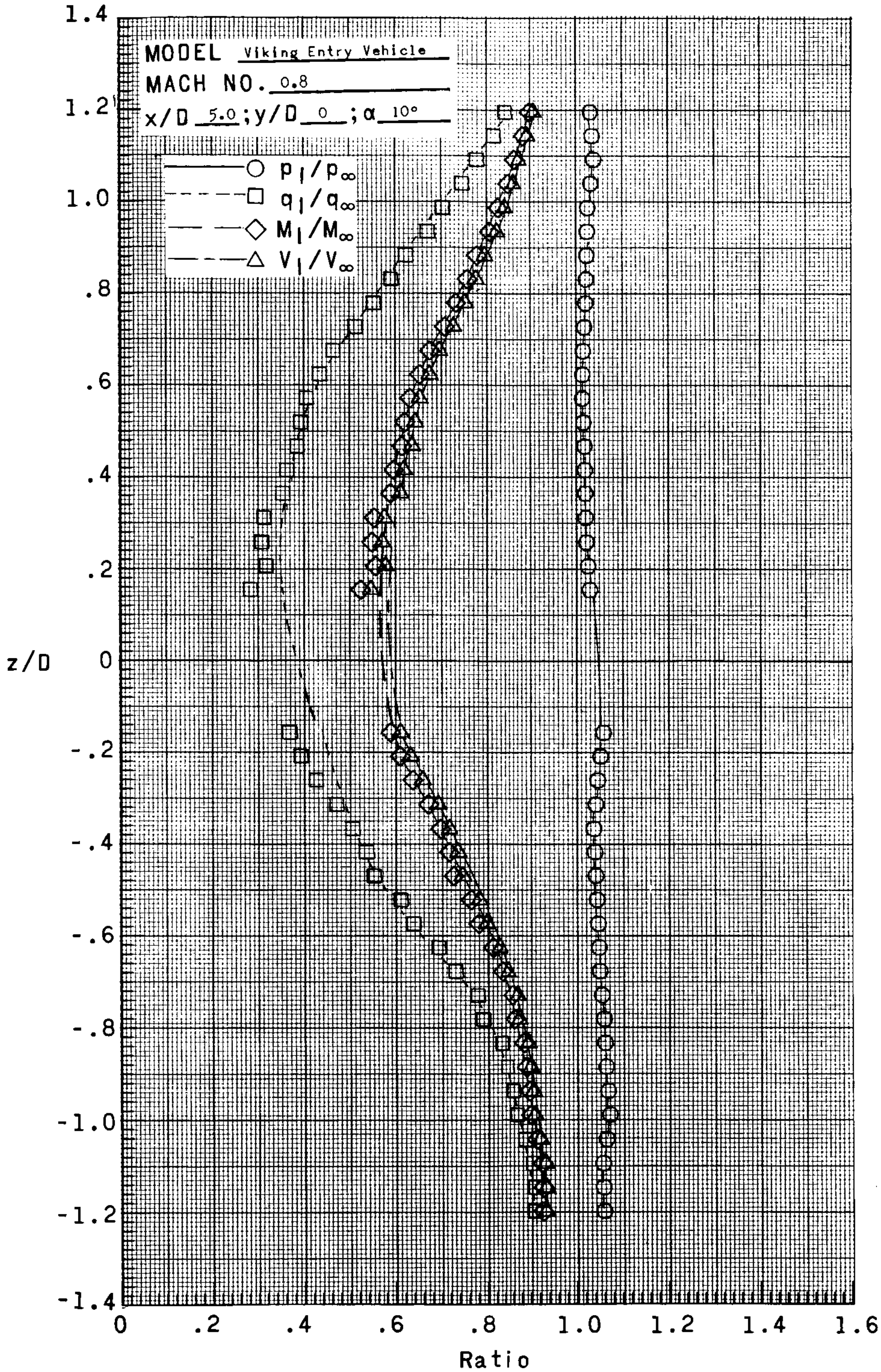
(f) x/D = 10.00.

Figure 19.- Continued.



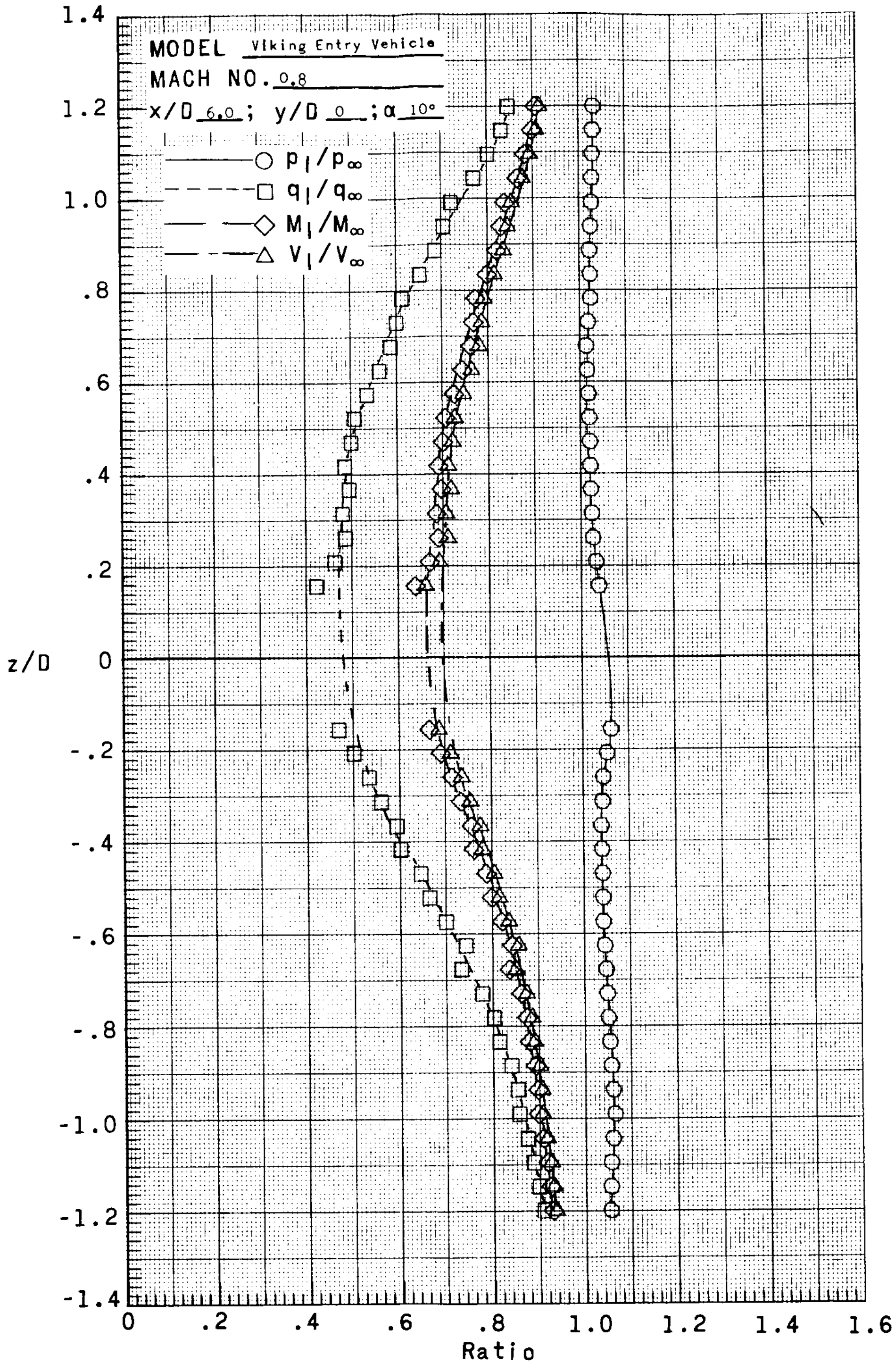
(g) x/D = 11.00.

Figure 19.- Concluded.



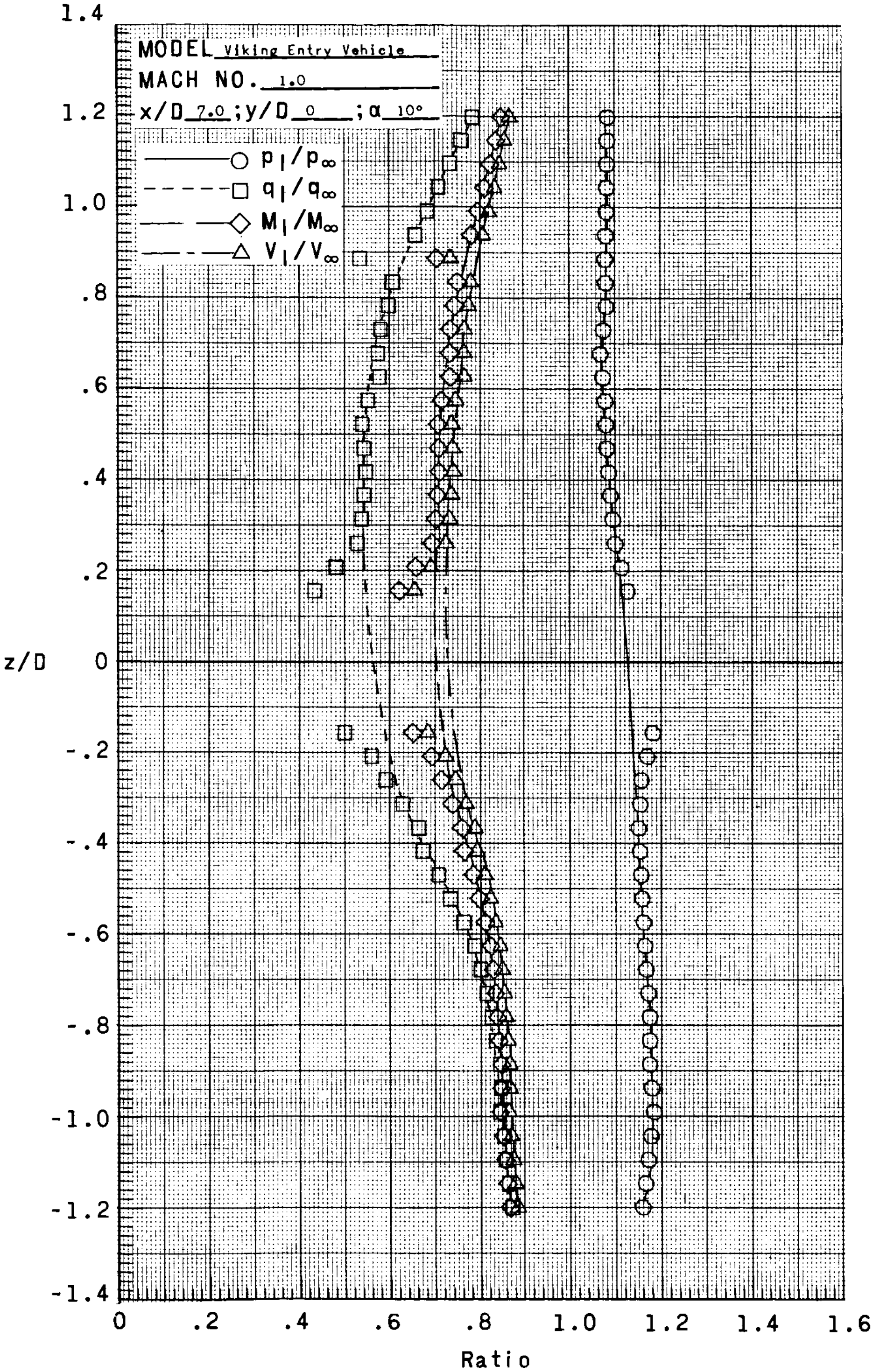
(a) x/D = 5.00.

Figure 20.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 0.80, y/D = 0, $\alpha = 10^{o}$, and Reynolds number of 12.30×10^{6} per meter (3.75×10^{6} per foot).



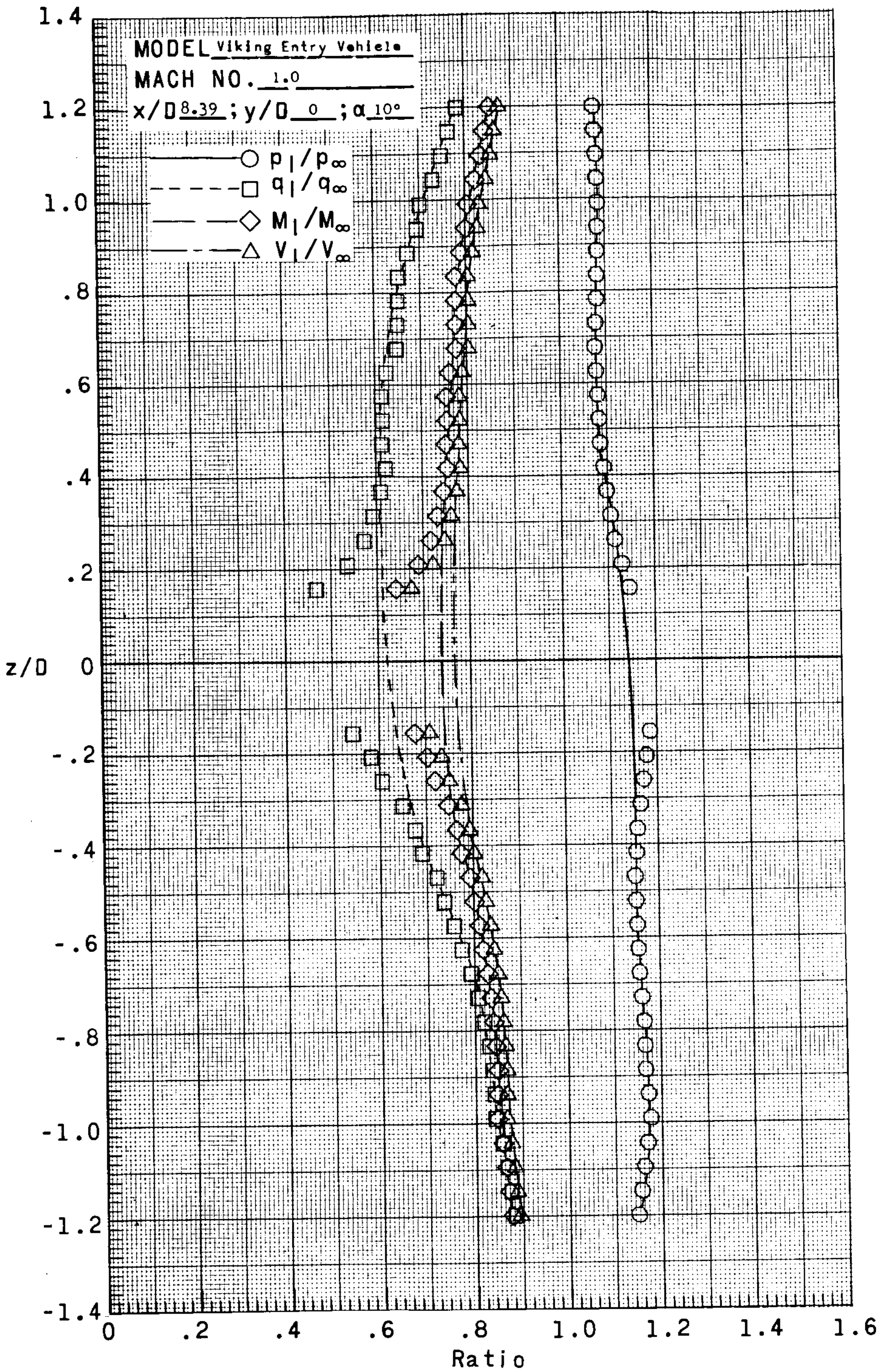
(b) x/D = 6.00.

Figure 20.- Continued.



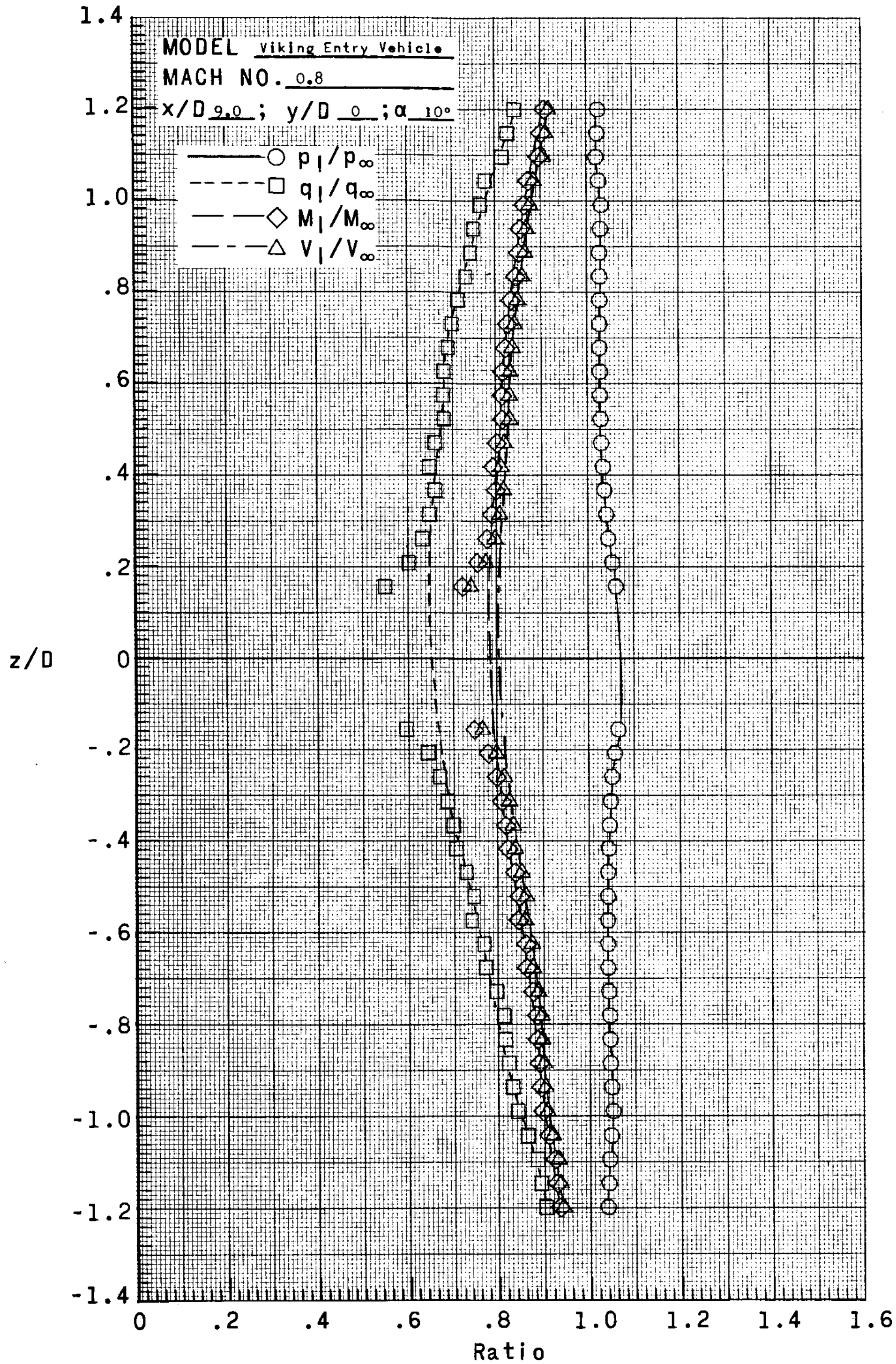
(c) x/D = 7.00.

Figure 20.- Continued.



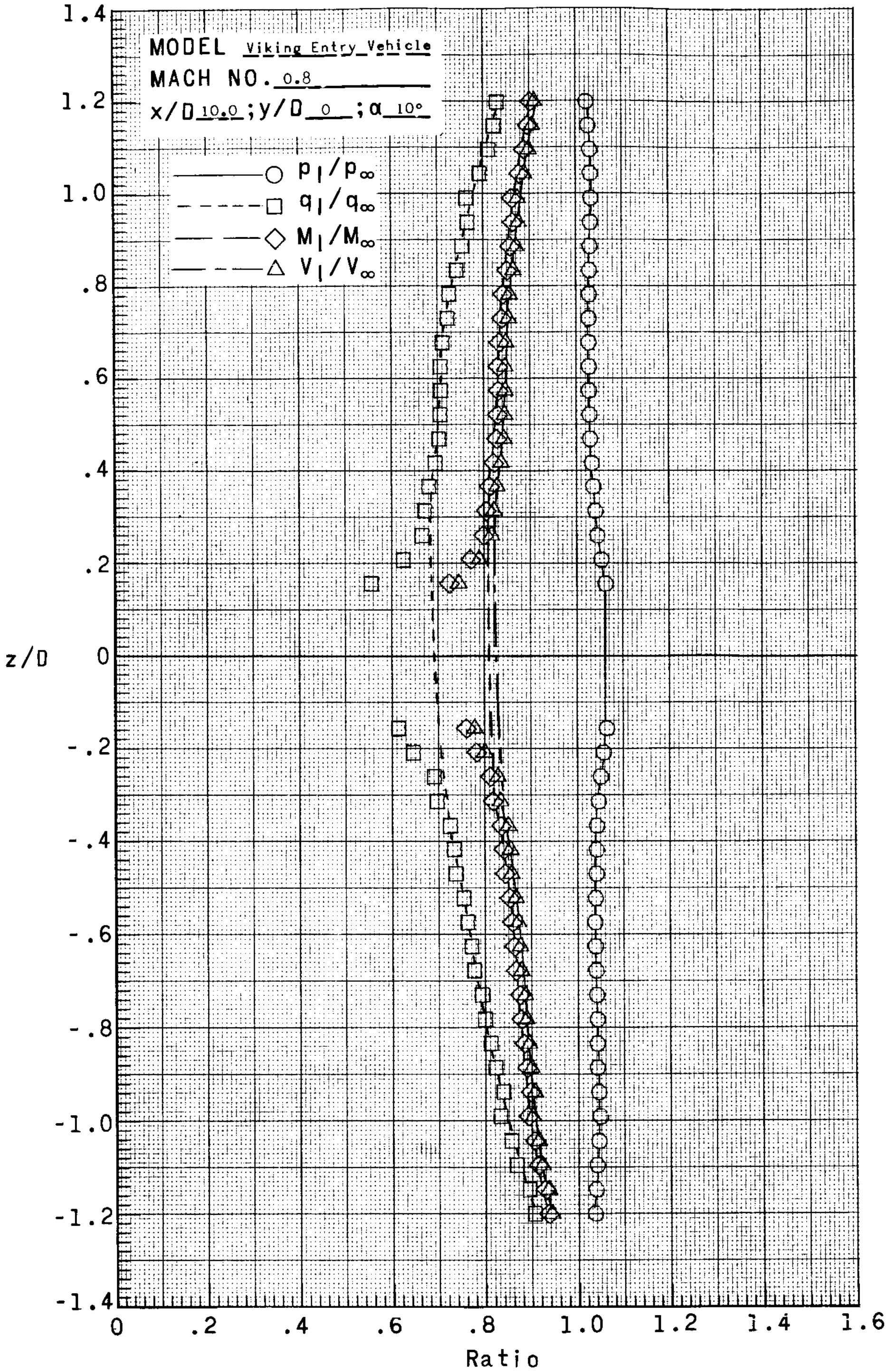
(d) x/D = 8.39.

Figure 20.- Continued.



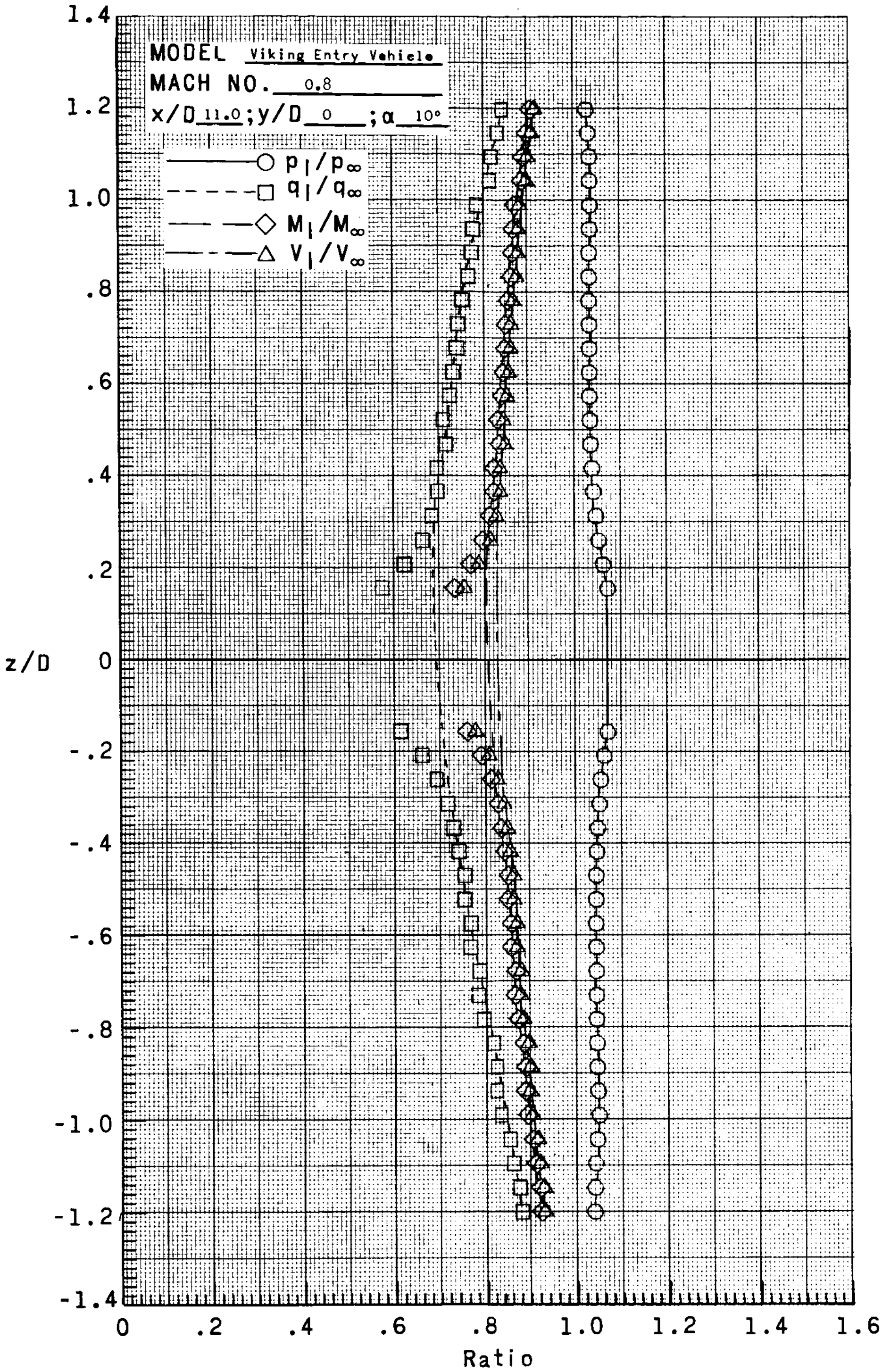
(e) x/D = 9.00.

Figure 20.- Continued.



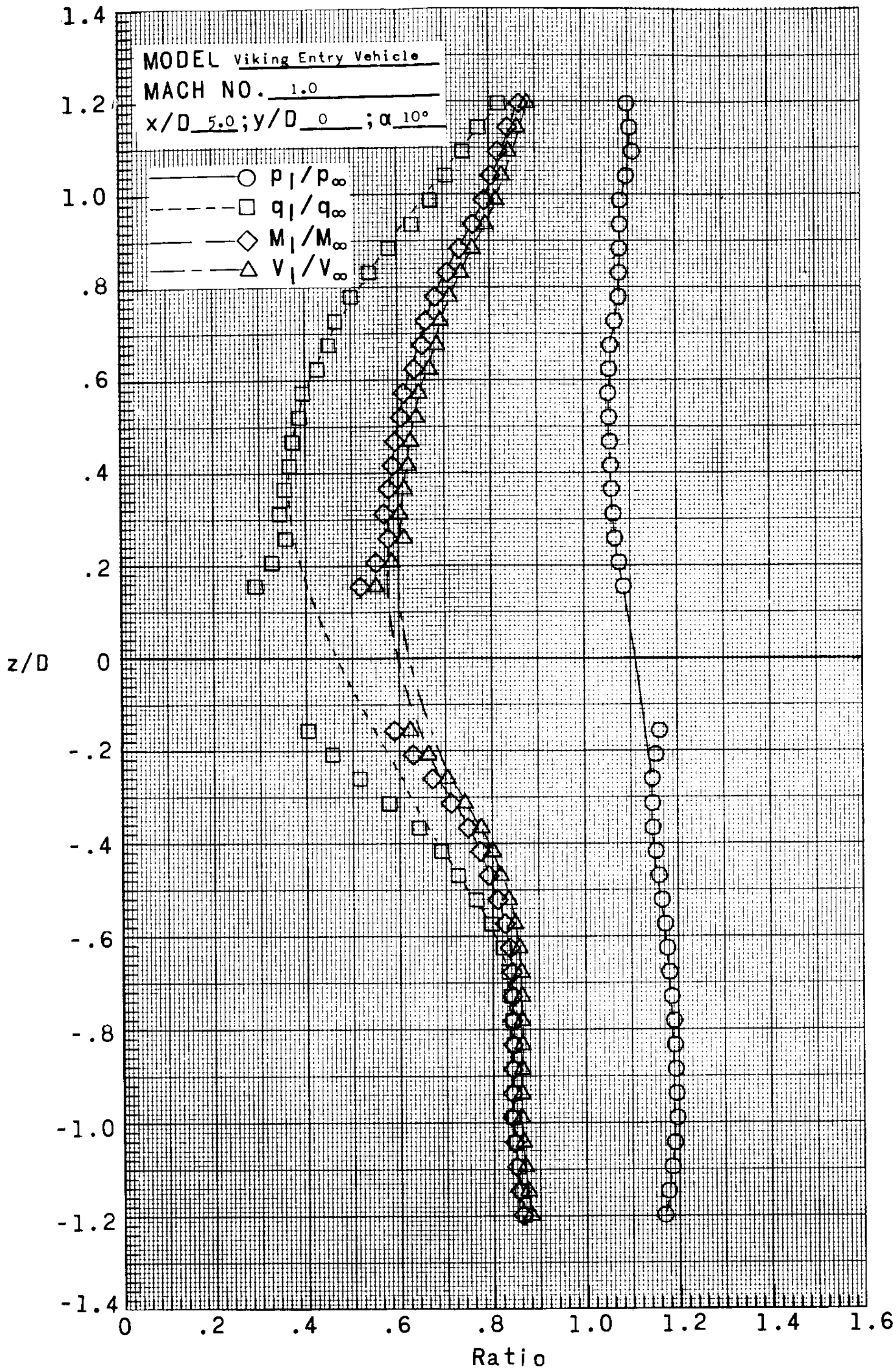
(f) x/D = 10.00.

Figure 20.- Continued.



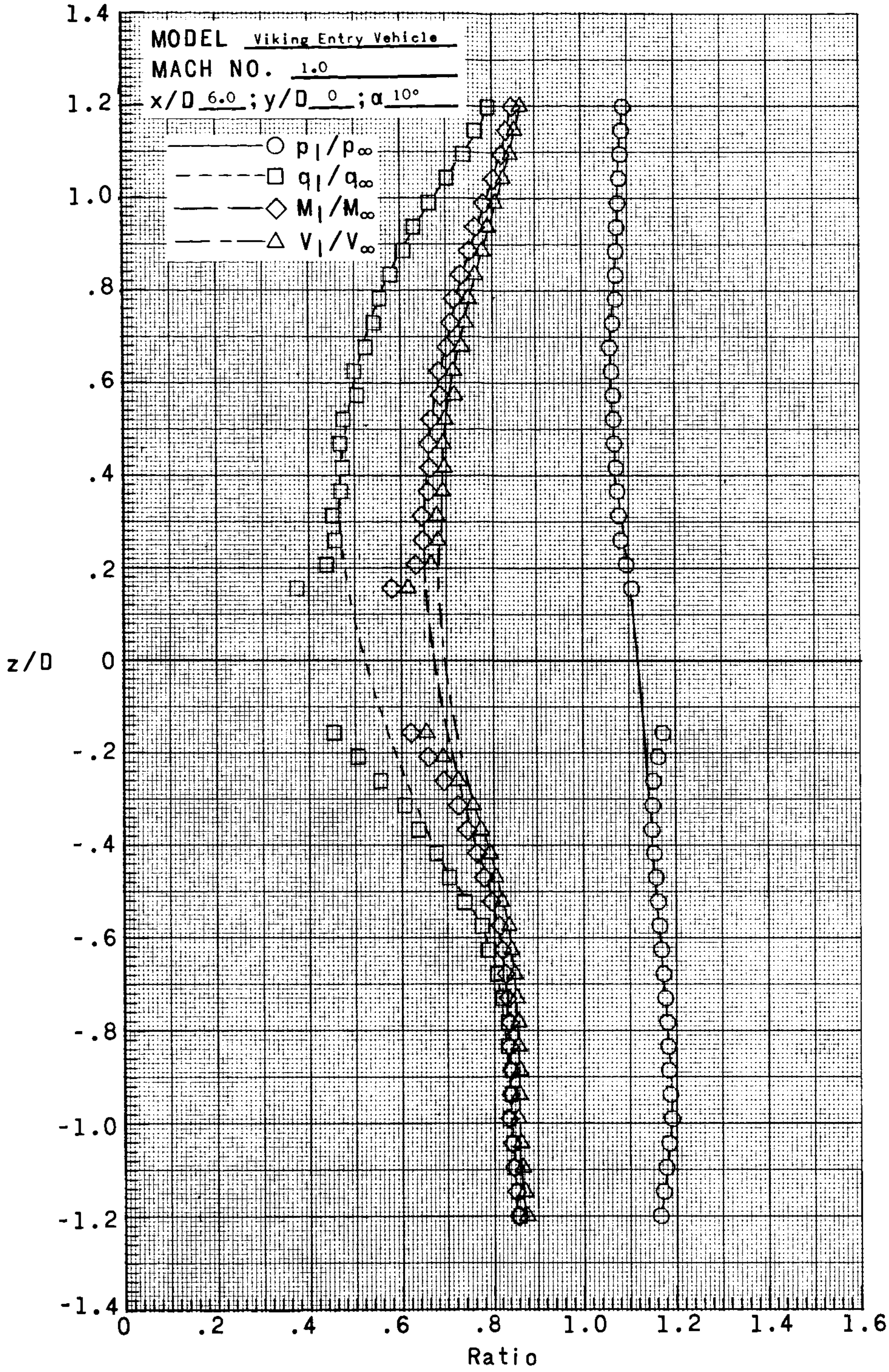
(g) x/D = 11.00.

Figure 20.- Concluded.



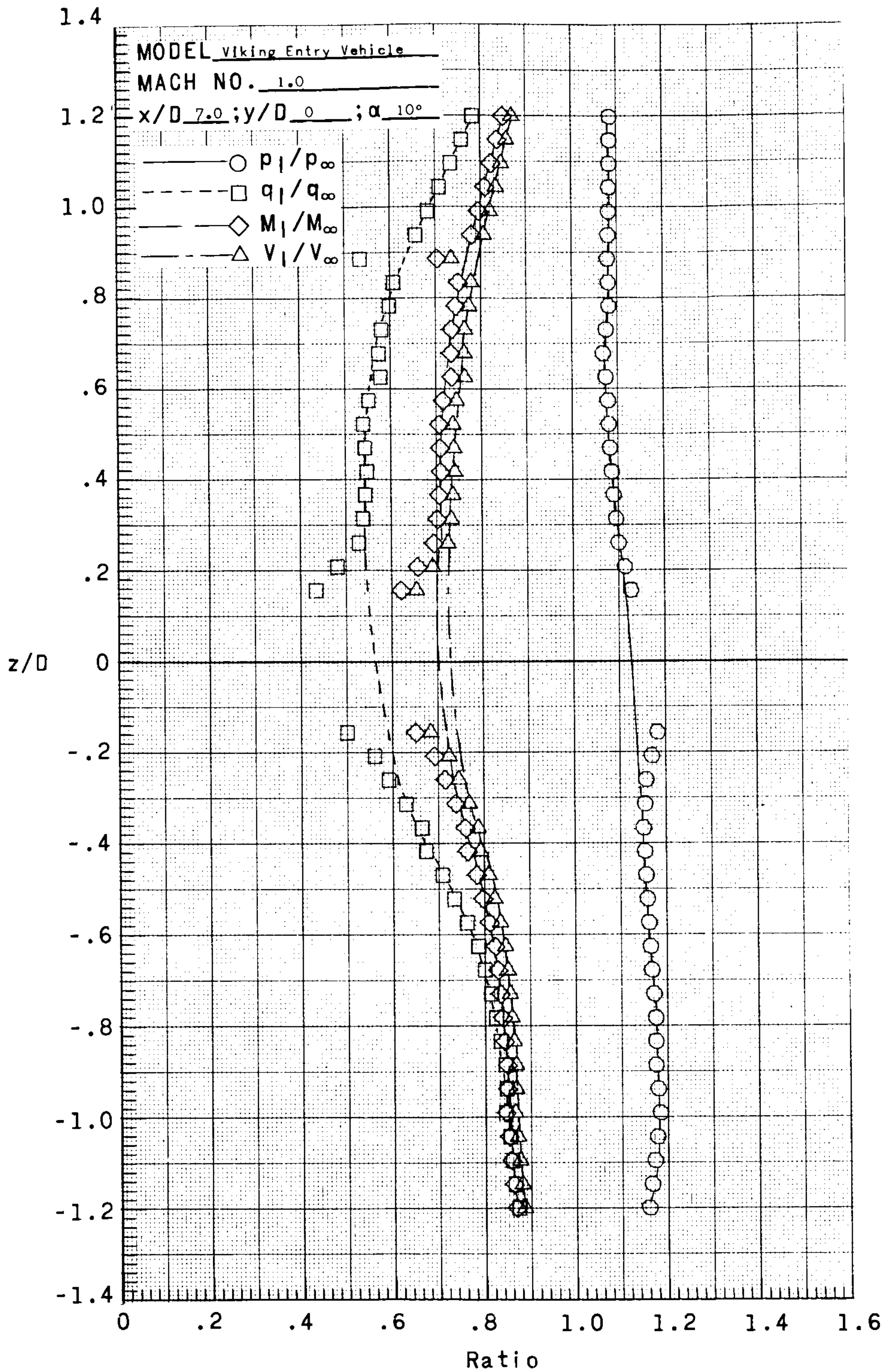
(a) $x/D = 5.00$.

Figure 21.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 1.00, $y/D = 0$, $\alpha = 10^{\circ}$, and Reynolds number of 13.75×10^6 per meter (4.19×10^6 per foot).



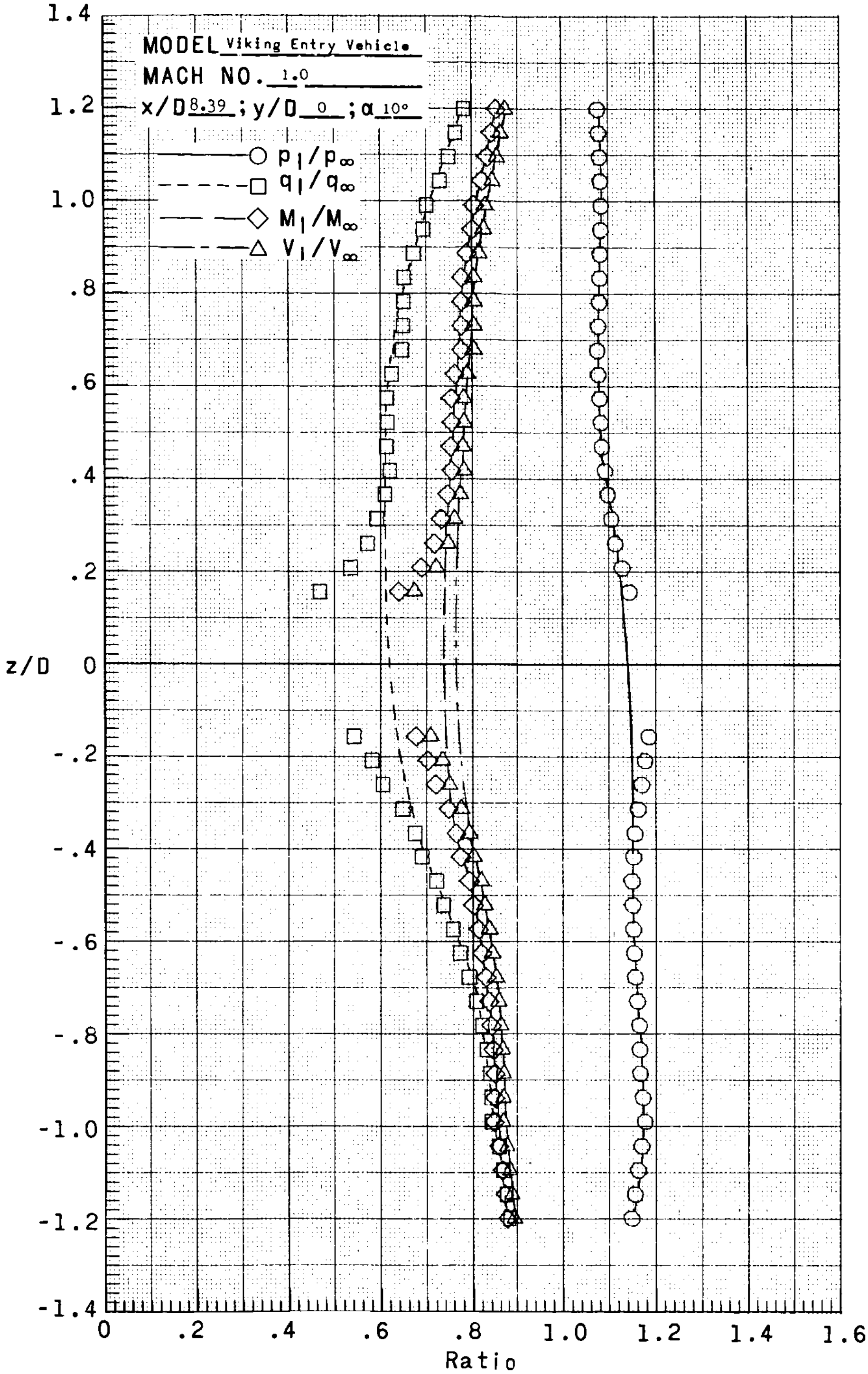
(b) x/D = 6.00.

Figure 21.- Continued.



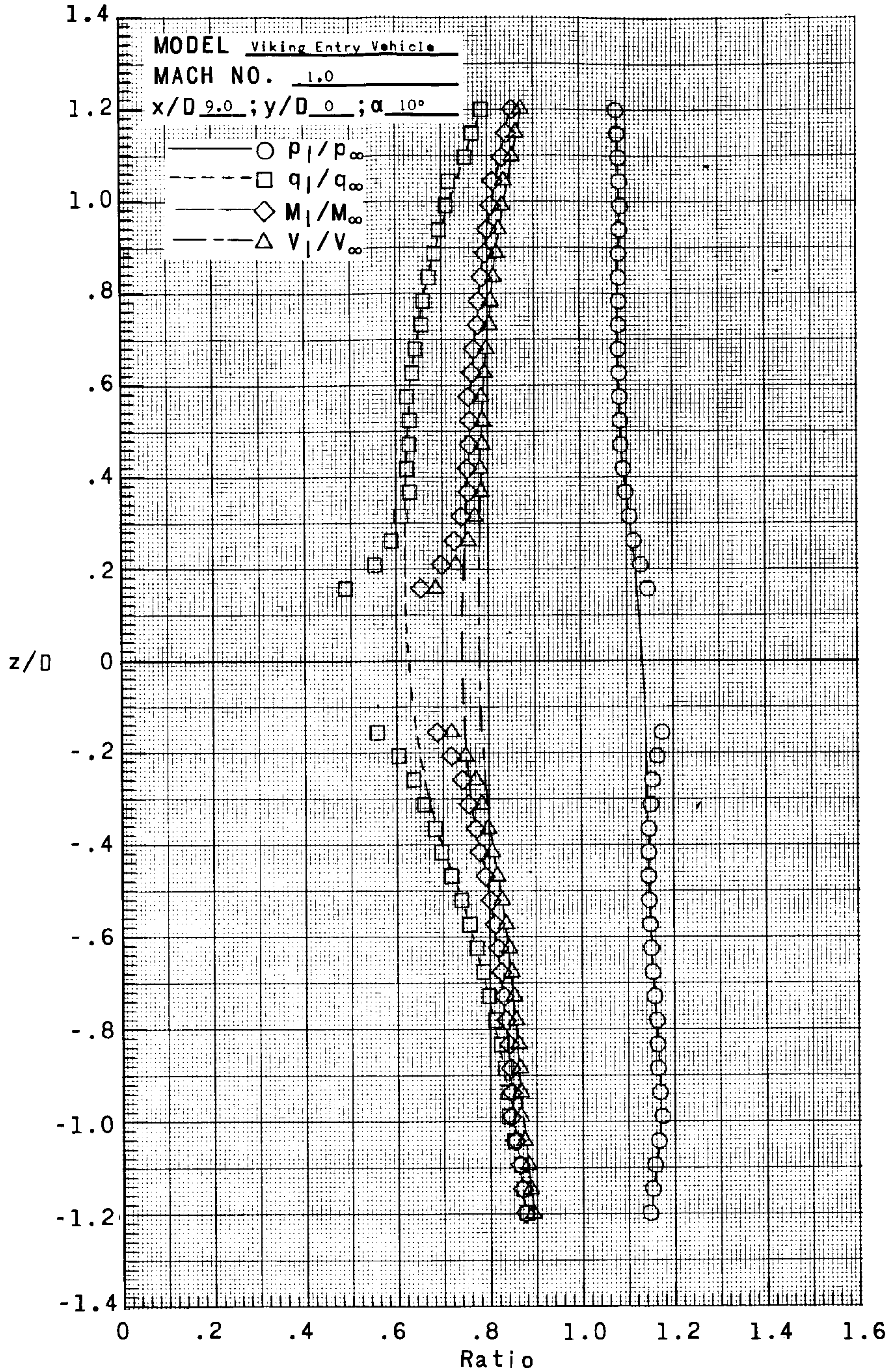
(c) x/D = 7.00.

Figure 21.- Continued.



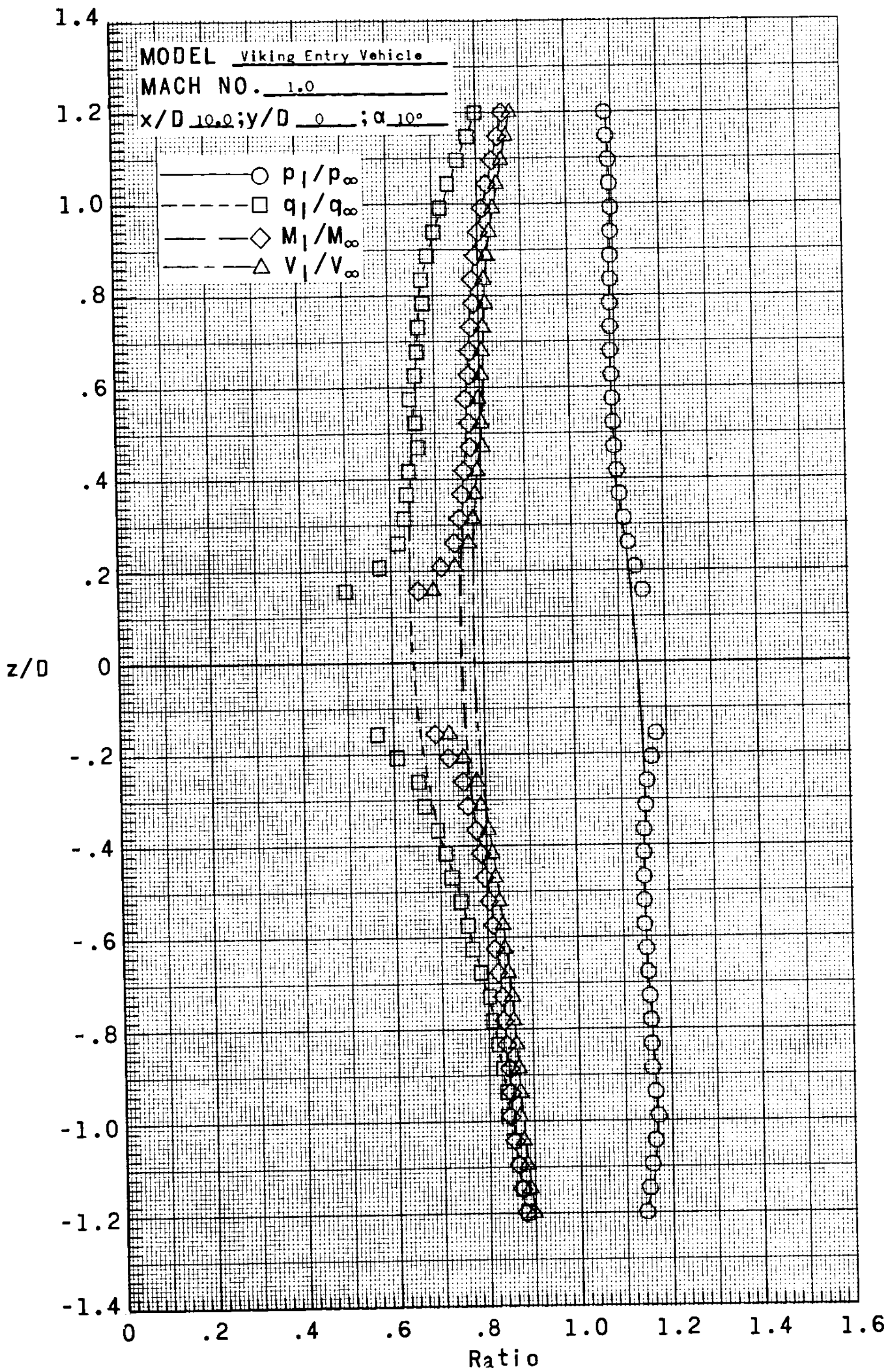
(d) x/D = 8.39.

Figure 21.- Continued.



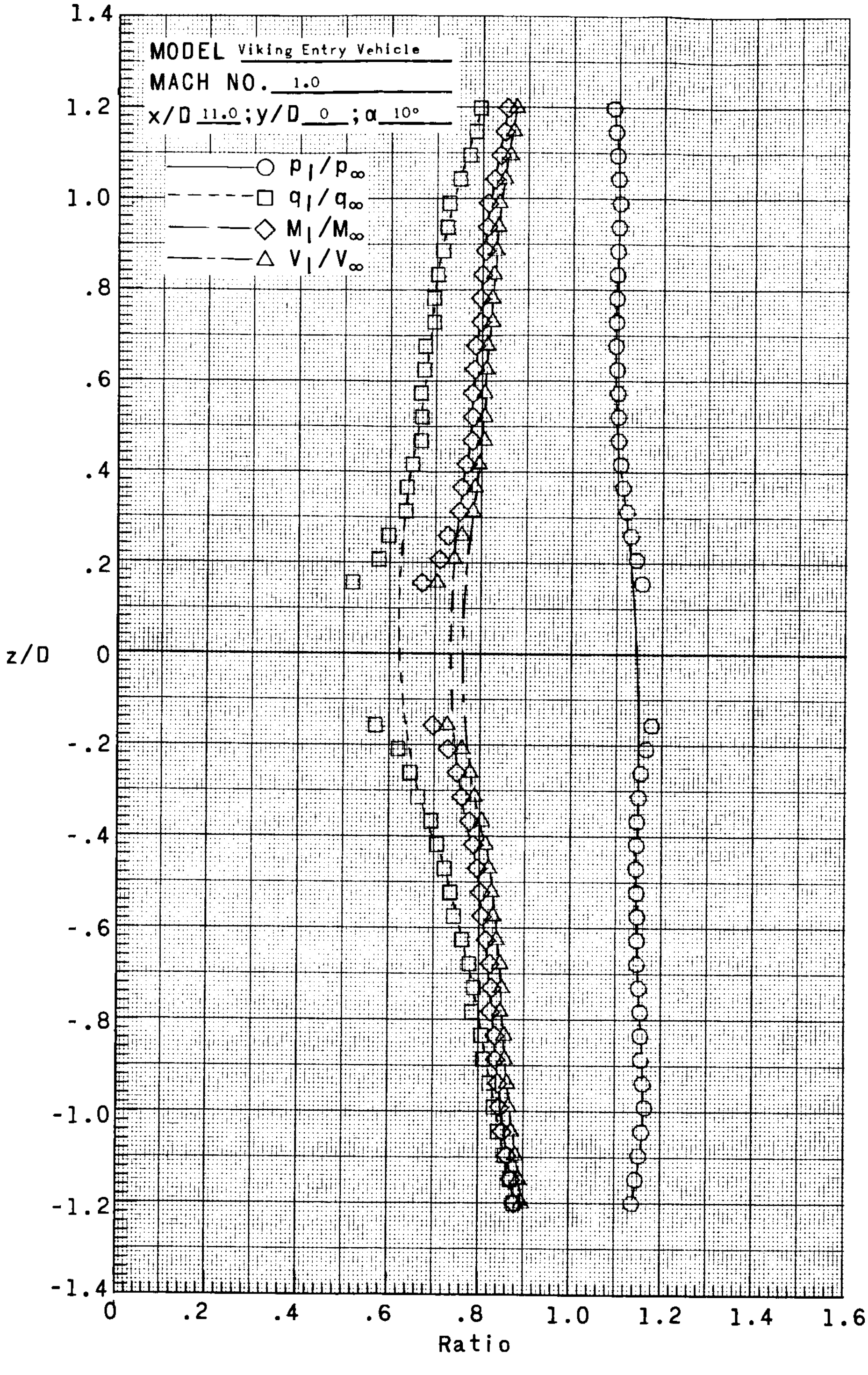
(e) x/D = 9.00.

Figure 21.- Continued.



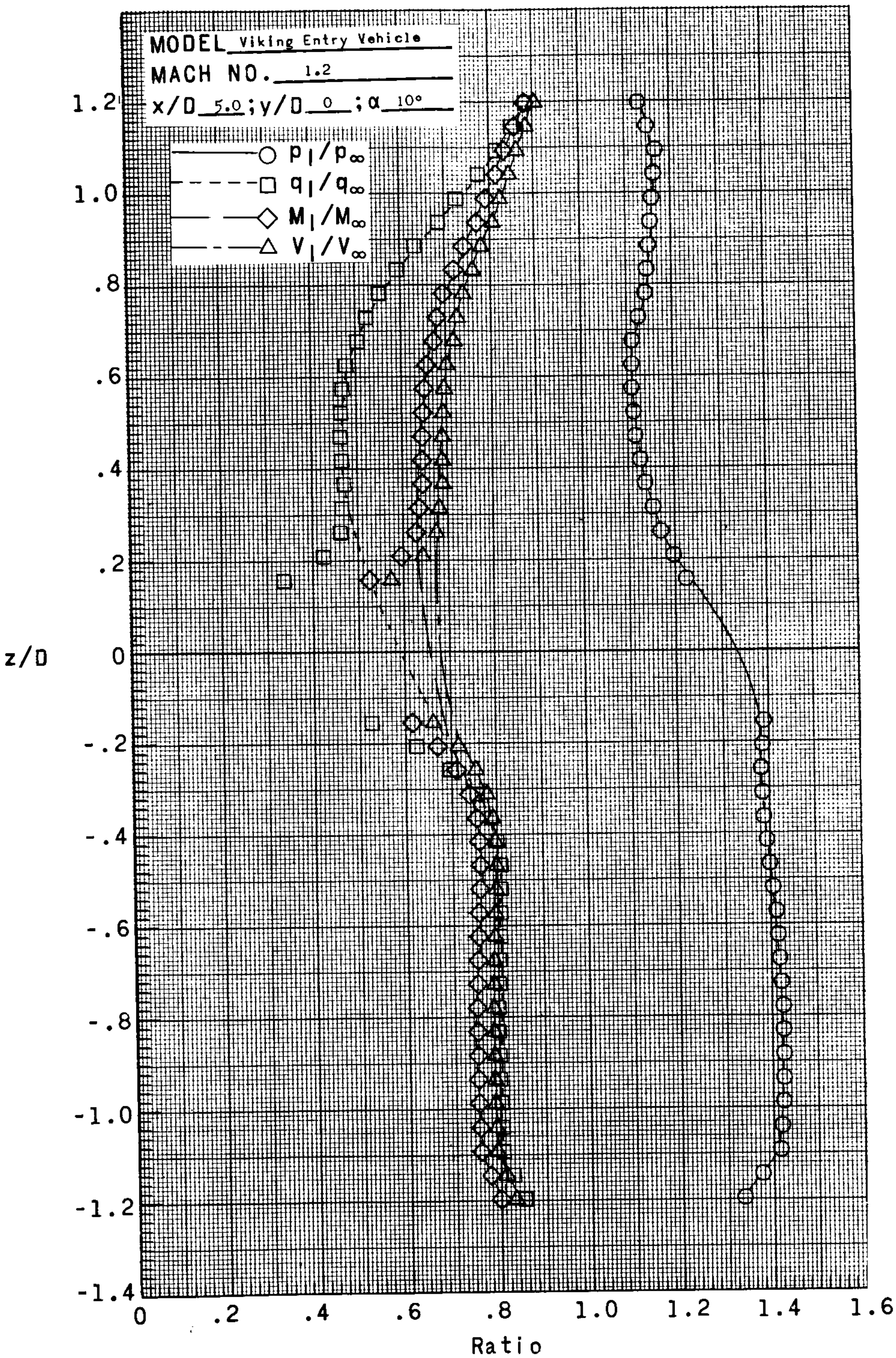
(f) x/D = 10.00.

Figure 21.- Continued.



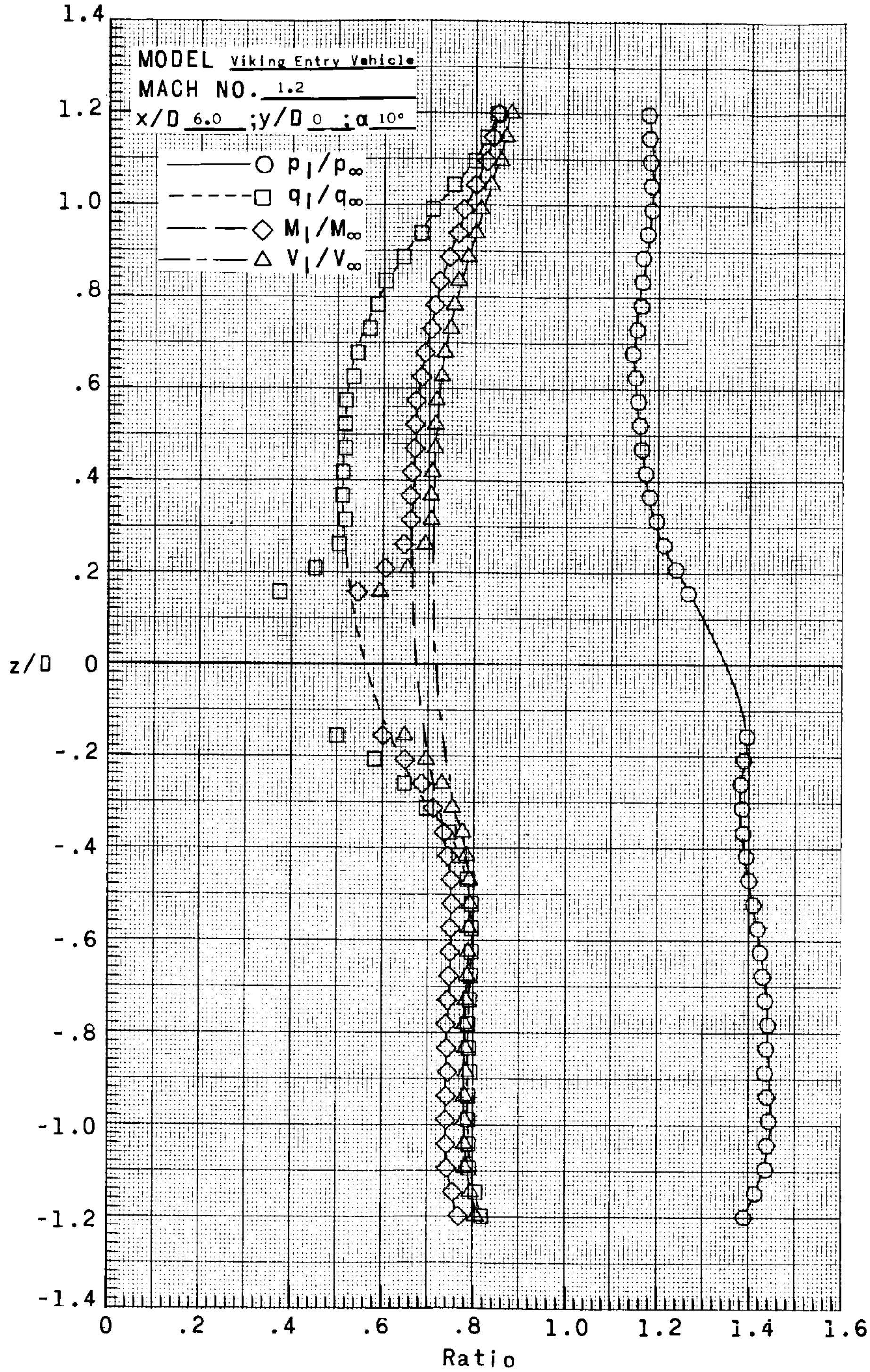
(g) x/D = 11.00.

Figure 21.- Concluded.



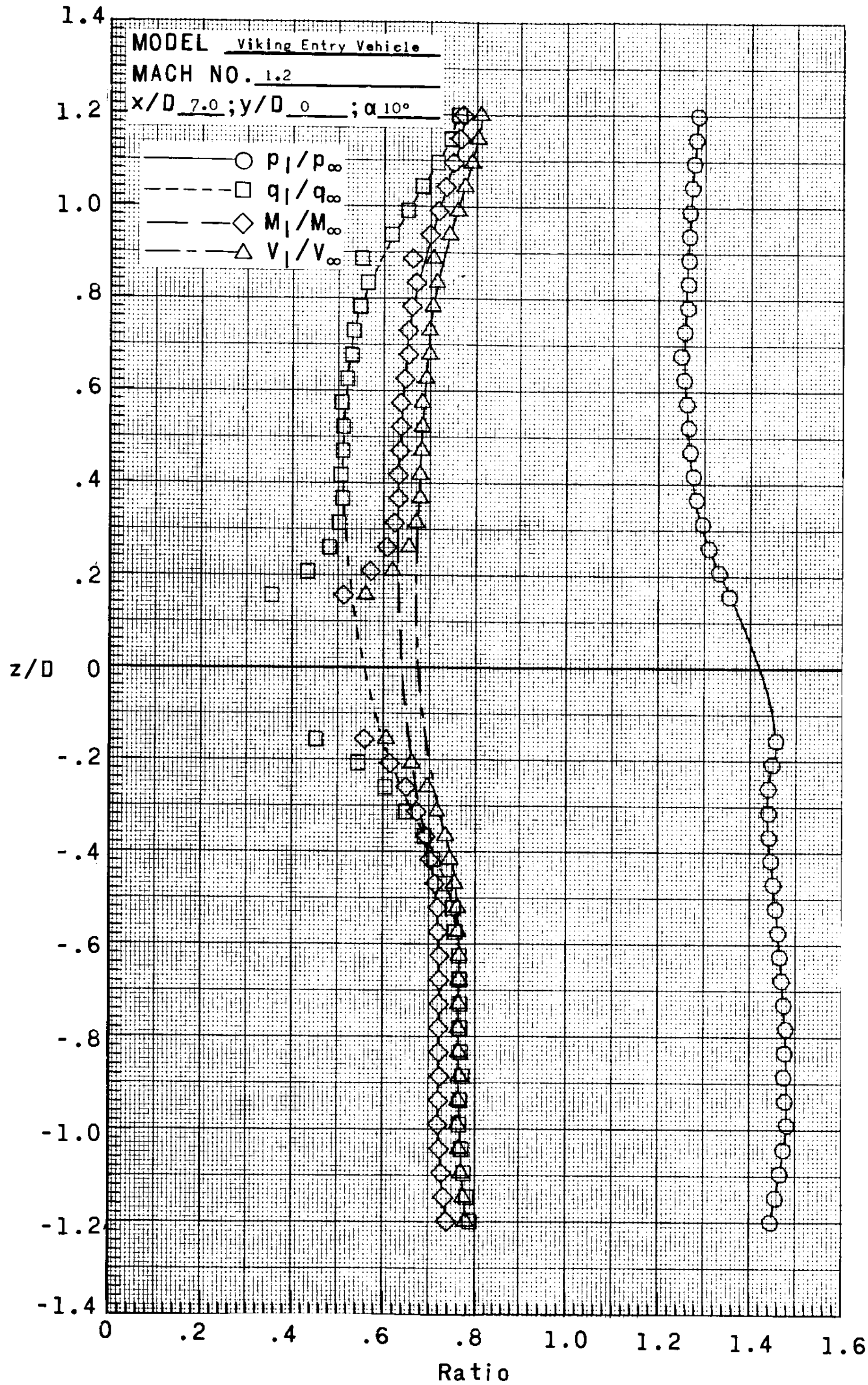
(a) x/D = 5.00.

Figure 22.- Variation of p_l/p_∞, q_l/q_∞, M_l/M_∞, and V_l/V_∞ with z/D in wake of Viking Entry Vehicle at Mach number of 1.20, y/D = 0, $\alpha = 10^o$, and Reynolds number of 13.83×10^6 per meter $(4.22 \times 10^6$ per foot).



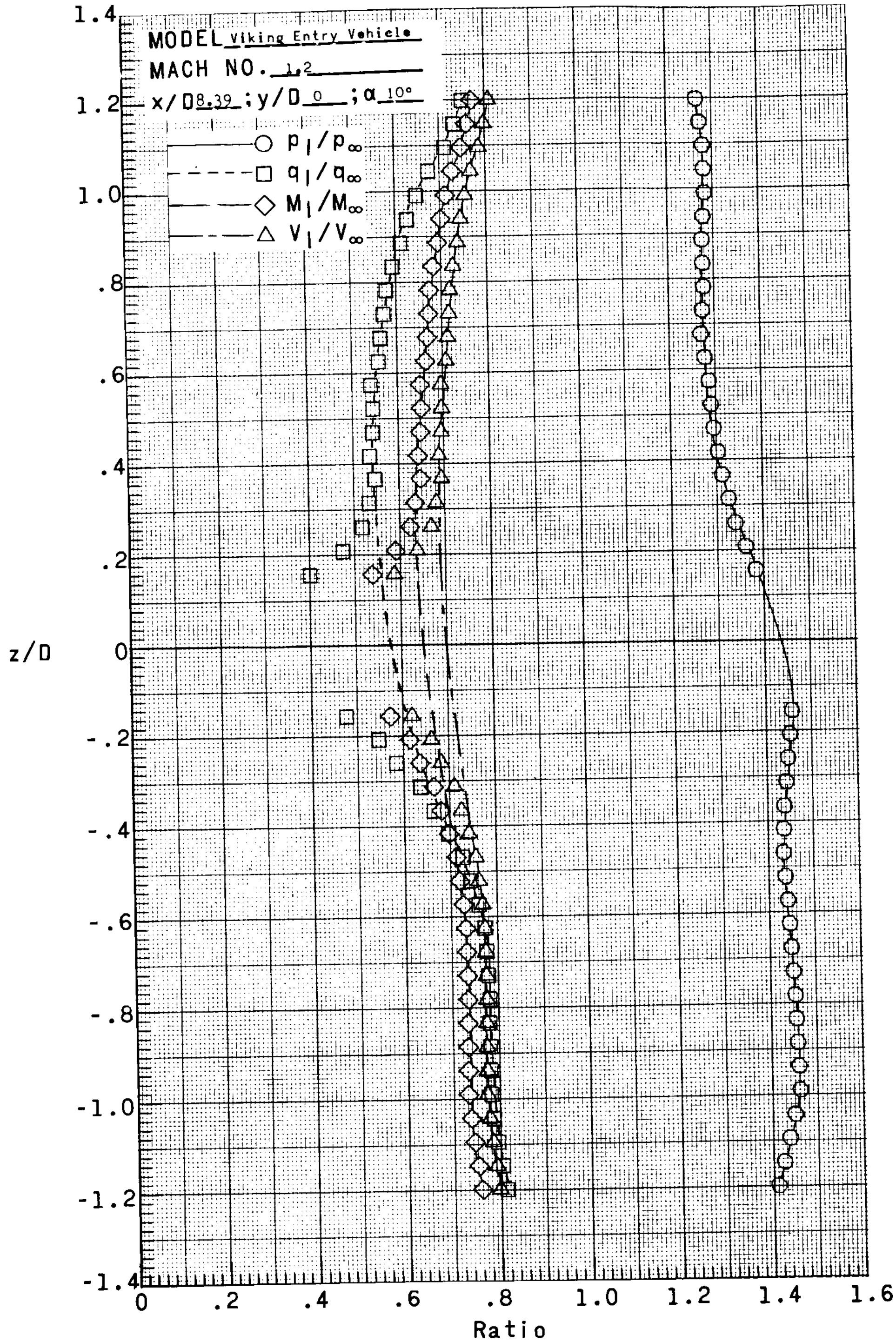
(b) x/D = 6.00.

Figure 22.- Continued.



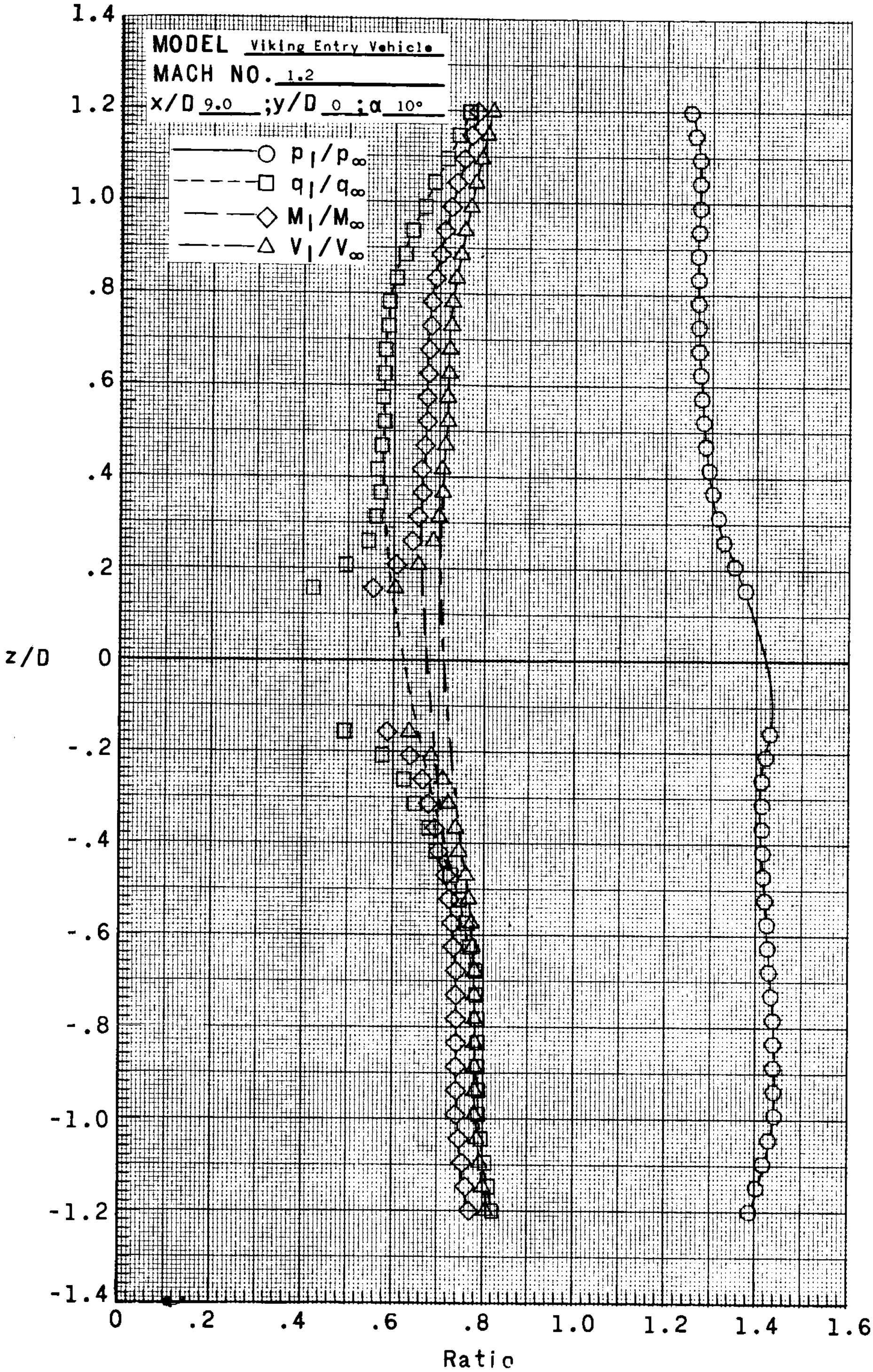
(c) x/D = 7.00.

Figure 22.- Continued.



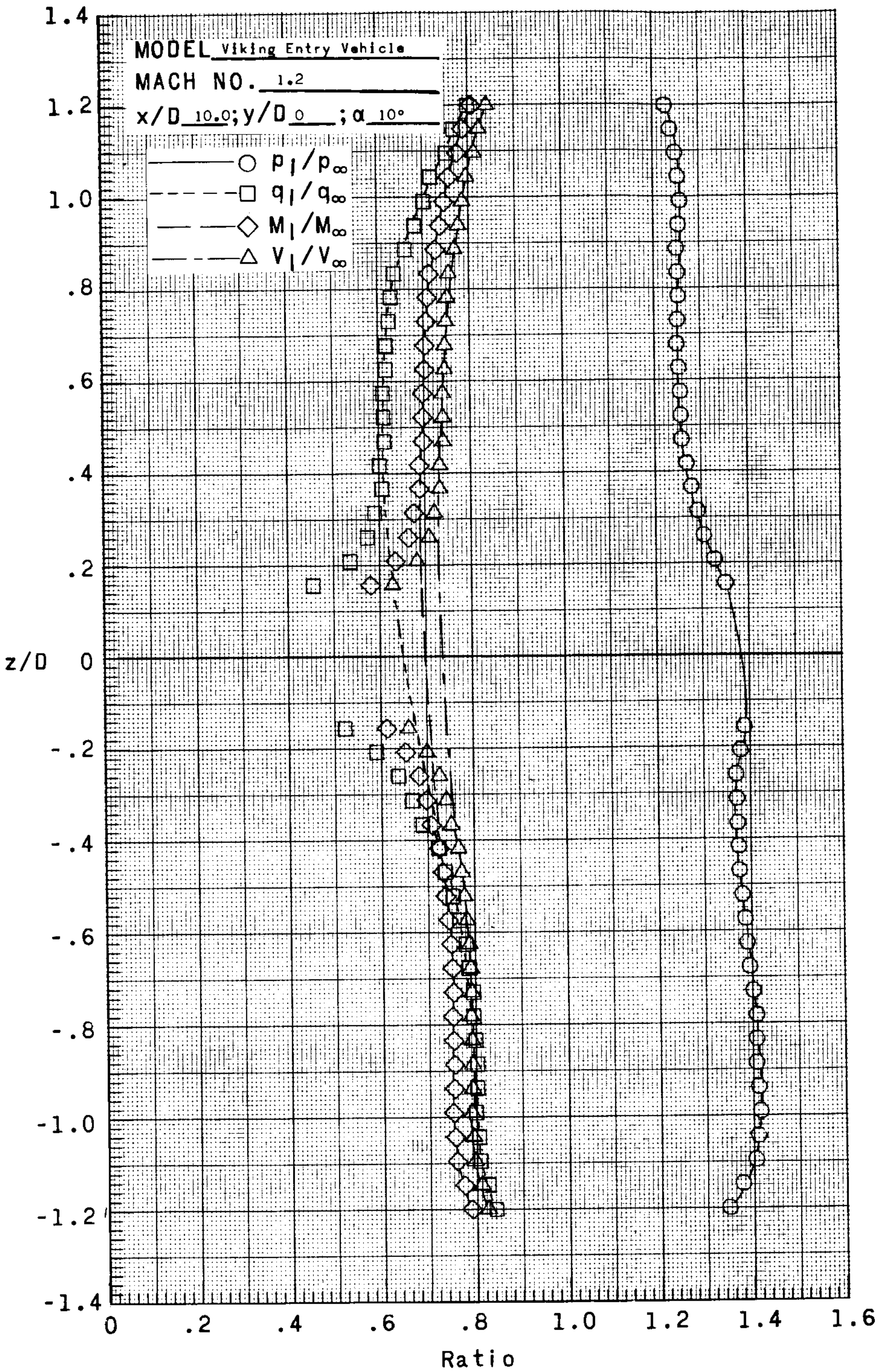
(d) x/D = 8.39.

Figure 22.- Continued.



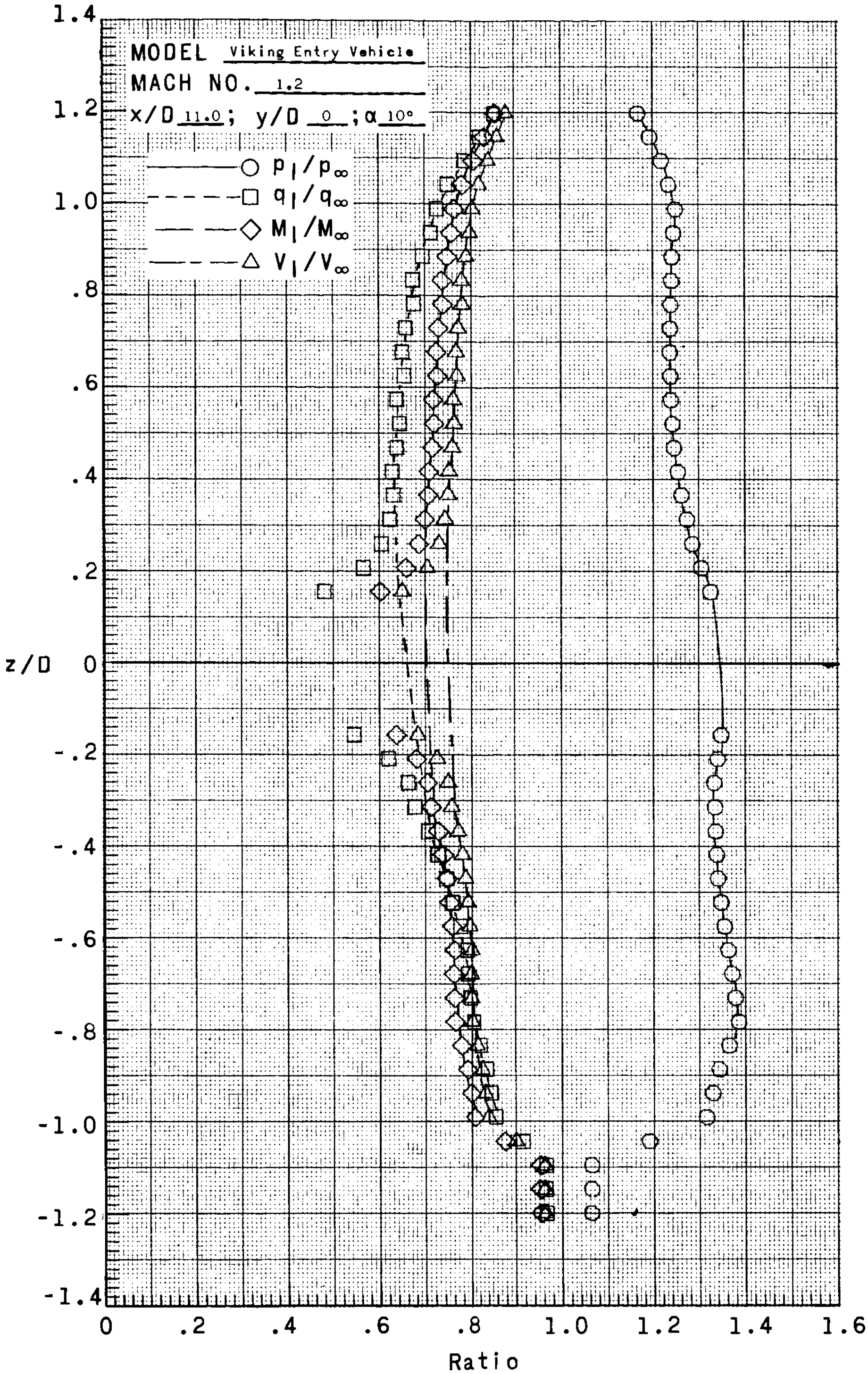
(e) x/D = 9.00.

Figure 22.- Continued.



(f) x/D = 10.00.

Figure 22.- Continued.



(g) x/D = 11.00.

Figure 22.- Concluded.